FREEZING POULTRY

For Home Use

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INTRODUCTION

The home storage unit and the availability of community frozen food locker plants make it possible for thousands of people to enjoy poultry in some form any time of the year. Some will want to use chickens or turkeys raised at home and others will want to buy in quantity to meet home needs. Those who are already taking advantage of these facilities and many who are planning to do so are asking how is the best way to prepare, package and freeze these products.

This bulletin is printed as an aid to those who wish to freeze poultry in many of the different forms for home use. The recommendations given have proven to be reliable in insuring a quality product but are not necessarily the only procedures.

The aim of everyone who freezes poultry should be to maintain the natural qualities that it possessed before freezing. Remember that the quality of the product coming out of the freezer will not be any better than that which is put into the freezer. To insure a high quality begin by selecting poultry that is young, well flesched and well finished. Kill and dress to maintain this quality and then prepare, package and freeze properly.
Freezing Poultry for Home Use

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TEXAS A. & M. COLLEGE SYSTEM

PREPARING FOR FREEZER

Poultry used for freezing should be of high quality and prepared ready to cook before freezing. Extension bulletin B-149, "Processing Poultry", gives a good reliable procedure for selecting poultry of high quality. It also gives methods to be used in killing, dressing and drawing. When these recommendations are used the poultry will be well selected and properly prepared for cooking. This is the only condition in which poultry is recommended to be frozen. When poultry has been made available in this form it is then ready to prepare for the freezer.

When preparing for the freezer be sure the animal heat has been thoroughly removed by chilling. This may be done with ice, ice water or by putting in a cooler. When cooling, keep away from smoked hams or moldy meats. This will cause off flavors and is undesirable.

It is always advisable to think about the every-day needs of the family and special occasions before preparation of the chicken or turkey starts. What size packages will best meet the family needs? How often does the need arise for larger packages in case of company or some social function? What size packages will pack best in the unit? When serving fried chicken do you want one meal of giblets? All of these questions and possibly others should be answered before preparation starts if the product is to be most satisfactorily packaged. Most families do not want a whole turkey at one time. Then why not cut it into pieces as suggested in this bulletin or it may be halved or quartered before packaging. Some
families prefer fryers cut into pieces, others like them halved, and still others want them left whole. Some may want a few packages of each preparation. Greatest satisfaction will be enjoyed from using the product if all possible needs are considered before packaging.

Equipment needed for the preparation will vary according to the product, the amount to be prepared and the form in which it is to be frozen. A board or wooden table of ample size is needed to put chicken or turkey on for cutting or sawing. A butcher knife can be used for all cutting, but a boning knife is helpful when disjointing and removing meat from the bone. The use of a wide bladed knife makes the job of cutting breast meat of turkey into pieces easier than when using a smaller knife. If long handle pruning shears are available, they should be used to cut the necks off of turkeys. The use of pruning shears will make the job easier and also will help to keep the knives from becoming dull. When sharp knives are used, the job of cutting is easier and it will take less time than is needed when dull ones are used. Oil stones, a grind stone or other sharpening equipment are necessary to keep knives sharp.

The form in which the product is to be packaged, size of the package, and needs of the family will need to be decided upon before starting the preparation of the product. It is also important that ample supplies and equipment, which are clean, be available.

Be sure the poultry is ready to be cooked regardless of the form in which it is frozen. This will help to insure cleanliness and save much time in meal preparations. Cleanliness is of so much importance that it should always be looked upon as a must in preparation of the product. This includes equipment, the product to be frozen and the person doing the work.
DISJOINTING BROILERS OR FRYERS

When disjointing broilers or fryers, use the following procedure. The task is not difficult when these recommendations are followed.

Remove neck by cutting close to wing joints as shown in Figure 1. If a large number of chickens are to be cut-up, the use of pruning shears or tin snips will make the job easier, faster and the cutting edge on the knife will last longer.

Remove wings by cutting at joints next to the body. Hold the wing as shown in Figure 2 and apply a little pressure with left hand. This will help to expose joint and make the cutting easier. Turn chicken and remove other wing.
Remove leg from the body at hip joint by cutting as indicated in Figure 3. A little pressure applied with the left hand to pull the leg away from body will help to open up the joint and make cutting easier. Turn chicken over and remove other leg.

Cut the leg in two pieces by disjointing at thigh and drumstick joint. The joint is more easily found if the cut is started at the lowest point of the natural bend of the joint.

Remove wish bone by cutting close to the front of the breastbone. Start cutting at end of breast and cut down toward wing joints as shown in Figure 5.
Cut back in two pieces by cutting in the middle of the back as shown in Figure 7. An upward pressure applied with the left hand will help to dislocate back at one of the vertebrae joints.

Separate back and breast by cutting through the flank and ribs to a point at wing joints. Then apply pressure at the end of breastbone and tail end of back to break the two pieces apart at the wing joints.

Cut the rear part of the back in two pieces. Start cutting at either side of tail head and cut as indicated in Figure 8.
Cut breast in two pieces as shown in Figure 9. A light weight meat cleaver and small chopping block are needed if many breasts are to be cut. If a mechanical saw such as used in butcher shops and many locker plants is available it is recommended for speed and ease in cutting.

Giblets may be wrapped separately and then wrapped with the other parts of the chicken or all giblets from a number of chickens may be wrapped together. The method used will depend upon how they are to be used. Wrapping giblets separately will keep them from discoloring the other pieces of chicken. Any of the moisture and vapor proof wrapping materials may be used for wrapping.

**HALVING**

*When halving broilers or fryers use one of the following procedures. The saw is commonly used in commercial plants but is not available to many who want to prepare chickens by cutting them in halves. Some may have the opportunity to get this service at the local locker plant.*

When saw is available they should be cut as shown in Figure 11. This procedure is recommended only in commercial plants where large numbers of chickens make it practical. Those who have this service available may want to use it.
When saw is not available cut down the back as shown in Figure 12. This is the first step in halving the broiler or fryer. Lay chicken on its side and start cutting at a point between neck and body. Cut along back to the tail.

Lay chicken on its breast and start cutting at a point on either side of breastbone as shown in Figure 13. Cut along the side of breastbone toward the rear end.

**WHOLE BROILERS OR FRYERS**

*When leaving broilers or fryers whole they may be prepared for wrapping as shown in either Figure 14 or 15. Chicken prepared and frozen in this way keeps well but must be cut after thawing. For this reason most people prefer to do the cutting before freezing.*
Some prefer to draw the broiler or fryer as a roaster or baker and then truss as shown in Figure 15. Wrap giblets separately and put inside body cavity for freezing. This makes a very compact package and there is a minimum amount of moisture loss. It has the disadvantage of not being cut as wanted for cooking. It also takes longer to thaw than pieces.

**PREPARING CHICKEN ROASTERS OR BAKERS**

*When preparing chickens for roasting or baking they should be trussed as shown in either Figure 16 or 17. Either is satisfactory but one shown in Figure 16 has more eye appeal when cooked and ready to serve.*

When preparing the roaster or baker for freezing, the giblets should be wrapped in a moisture and vapor proof material and placed inside the bird. When the bird is drawn it should have the skin on back of neck cut to a point even with the wing joints. The skin is pulled off the neck and the neck cut off close to the body. The skin is then pulled over the
back for freezing. This procedure is illustrated on pages 13 and 22, figures 16 and 22 respectively in Extension bulletin 149, “Processing Poultry”. The next step in trussing is to tie the legs to the tail head and place the wings against the body as shown in Figure 15. There is a vertical cut in the abdomen for an opening to draw the bird. The cut should start about one inch below the end of the breastbone and then down and around the vent. For details showing this procedure see Figure 22 on page 17 in Extension bulletin 149, “Processing Poultry”.

Another procedure is to put the legs through the abdominal skin. Do this by first making a horizontal cut through the abdominal skin about one inch below the end of breastbone. Next cut around the vent. The chicken is drawn through the top horizontal opening. The final step is putting the ends of the drumsticks through the top horizontal opening and out through the bottom opening. Now place the wings next to the body as shown in Figure 15 and the chicken is ready for wrapping. For details on this procedure see Figure 23 on page 17 in Extension bulletin 149, “Processing Poultry”.

**PREPARING TURKEYS**

When preparing turkeys to be frozen use any one of the following procedures. The needs of the family will determine which should be used. Suggestions on these needs are given on page 4 in the third paragraph.

**ROASTING OR BAKING**

When turkeys are prepared for roasting or baking the same procedures are used as given for chicken roasters or bakers.
HALVING

When halving turkeys it is best to saw them as shown in Figure 19. This service can be obtained at most frozen food locker plants or the local meat market will often render this service for their customers.

Fig. 19

QUARTERING

When quartering a turkey saw first in two halves as shown in Figure 19 then saw again as shown in Figure 20. The sawing can be done before or after turkeys are frozen.

Fig. 20

DISJOINTING

When disjointing and boning a turkey the following procedures are recommended for those wanting the turkey in pieces. This method makes it possible to cook the meat in different ways, such as frying, roasting or broiling. Another good reason for using this procedure is to make available small quantities for one or two meals. It also makes turkey available more often throughout the year.
First step in this procedure is to remove the neck as shown in Figure 21. The pruning shears being used for this purpose make the task easy and save the cutting edge on knives.

Remove the leg by cutting between body and leg down to the hip joint. Pressure applied on the leg away from the body with the left hand will help to open the joint. This will make it easier to locate the joint and remove the leg. Turn turkey over and remove other leg.

Remove wings by placing turkey on its side and cutting into the joint as shown in Figure 22. A little pressure with the left hand will help in locating the joint and cutting wing from body.
After removing the legs disjoint them at the joint between the thigh and drumstick. Some prefer to leave the leg in one piece. This will depend upon the individual and the method of cooking.

To separate the back and breast cut through the flank and ribs to a point at wing joints. Then pull back and breast apart by applying pressure on the ends of breast and tail head on back. This will allow for the cutting of cartilages connecting the two pieces at the wing joints.

Cut the back in two pieces as shown in Figure 26. A small meat cleaver, hand axe, or hatchet is best for this purpose when a saw is not available.
MAKING BONELESS TURKEY STEAKS

If boneless steaks are desired cut breast meat into 4-ounce portions. After this has been done put them through a machine which makes them uniform in thickness and reasonably uniform in shape.

The breast may be wrapped with the meat on the bone. Most people prefer to remove the bone as it takes less space in the storage unit. The meat is easier to slice without the bone and when boneless turkey steaks are made it is necessary to remove bone. Figure 27 shows the process of removing the breastbone.

It also knits together the pieces if there are more than one in the 4-ounce portion. The 4-ounce portions are shown in Figure 28 and Figure 29 shows the meat being put through a machine and the finished product.
There is a connecting tissue on each side of the breast that should be removed if the meat is to be made into steaks. This connecting tissue is thin and easily removed. Figure 30 illustrates the removal of this tissue from the meat. Breast meat is more tender than some other parts of the turkey and may be fried in 8 to 10 minutes. Information on frying may be received at your County Agricultural Agent's office or Extension Service, College Station, Texas.

PACKAGING FROZEN FOODS

Foods that are to be frozen and kept in a home storage unit or the community frozen food locker plant should be wrapped or put in a container that will preserve its original quality.

There are many good packaging materials and containers, but none have been produced that are perfect. A good wrapping material for packaging poultry should have the following properties:

PROPERTIES OF WRAPPING MATERIALS

- Moisture, vapor and air proof
- Pliable
- Odorless and tasteless
- High wet strength
- Grease proof
- Strong, to stand handling before and after freezing
- Easily marked or labeled
- Economical—not cost too much
- Easily sealed or closed
- Attractive in appearance
A few good wrapping materials are:

1. Aluminum Foil
2. Laminated Cellophane
3. Cellophane
4. Laminated Glassine (Tite)

It has been demonstrated that the better the wrapping material and the carefulness with which the packages are made and closed, the longer and better the products will keep when frozen and stored at zero degree. A single wrap of a good quality material may be better than two coverings of a poor quality product. Some of the better wrapping materials are:

WRAPPING MATERIALS

- Aluminum foil
- Laminated aluminum foil
- Moisture proof cellophane
- Laminated cellophane
- Laminated glassine
- Pliofilm
- Polyethylene
- Plastic bag (for vacuum use)
- Thermoplastic dip or wax

METHODS OF WRAPPING PACKAGES

There are two methods that may be used to wrap a package—the drug store and the butcher wrap. Both are acceptable and both have their good and bad points. Which ever method is used, wrap the product tightly so the packaging material is tight against the product and forces the air out so that there are no air pockets here and there after the package is sealed.
DRUG STORE WRAP

Fig. 32

1. Bring wrapping material up from behind object. 2. Bring material up from front of object and place together. 3. Fold two edges together until tight on object. 4. Fold each end toward object until tight. If wrapping material is not rigid enough to hold tight it must be tied.

BUTCHER WRAP


Fig. 33

1. Place object to be wrapped diagonally on the wrapping material. Pull up material from back and pull tight over the object, then with left hand bring up material from left side and fold over as shown in “1”. 2. Next use right hand and bring up wrapping material on right side and fold over as shown in “2”. 3. The final step is to roll object from operator until fully wrapped and then tie as shown in “3”. Scotch tape or gum tape may be used instead of cord.
Closing packages may be done by using a gum tape, scotch tape, or just cotton cord. Some tapes do not stick well at zero temperature so some caution should be exercised when purchasing a tape that will suit the low temperature conditions.

**CONTAINER REQUIREMENTS**

There are conditions where containers can be used to better advantage than wrapping material for packaging certain food products. For example, some people prefer putting chicken in containers and covering it with water and then freezing. When covering with water, leave enough room at top of container for expansion of water when frozen.

Regardless of how a container is used it should have certain good qualities just as a good wrapper. A good container should have:

- Size suitable for family needs for one meal
- Easy to fill
- Easy to empty
- Economical in cost
- Pack away so space is not wasted in storage unit
- Easy to close or seal
- Durable, not easily damaged in handling in box

**CONTAINERS**

There are eight general types or styles of containers available on the market that are satisfactory for frozen foods:

- Glass jars
- Paper waxed cartons (cylindrical or tapering)
- Rigid square, cardboard with plastic top
- Collapsible paper boxes with moisture proof inner bag
- Tin cans
- Plastic
- Bags (without a box protection)
- Aluminum foil

Be sure to mark packages. Label each container or package, giving such information as date when frozen, weight, product, how prepared and parts. Example: 8-12-50; 4 drumsticks; chicken.

**FREEZING POULTRY**

When placing packages on trays to go in the freezer be sure to space them to allow free circulation of air, as shown in Figure 35. This will hasten freezing and thereby help to maintain original quality. Packages
placed close together are not likely to spoil but freezing will be slow. This will lower the quality because of leakage that will occur when thawing for home use.

Poultry should not be frozen at temperatures above 0°F, and it is better at minus 10 to 25°F. After freezing is complete the product should be held at a constant zero degree temperature. The less variation in temperature during storage, the more likely the product will be to maintain its original quality.

Be sure packages are properly wrapped before freezing. If this is not done there will be freezer burns and evaporation.

Glazing poultry may be done by trussing and then dipping in near freezing water, then freeze, dip again, let ice film freeze and dip again; however, this is not a common practice.

**HOLDING FROZEN POULTRY**

The length of time to hold poultry and still maintain quality will vary. The quality of the product, methods used in killing, dressing and preparing for freezing will affect time of holding for best results. Temperature and uniformity of temperature in which the poultry is held will also have its influence.

Large items such as turkeys and roasting fowl under average conditions can be held longer than disjointed fryers with less noticeable quality changes. The usual recommendation is 6 to 12 months for poultry products under average storage conditions.
The time required for thawing will depend upon size of package, size of piece or pieces and method used. One of the best ways to thaw is to place unwrapped package on shelf in refrigerator. If time does not permit this procedure, thaw in room temperature or in front of an electric fan. It will usually take about an hour per pound to defrost at 72°F. room temperature, or six hours in the refrigerator at 40°F. If an emergency arises defrost by running cold water on the package. Thawed frozen poultry deteriorates more rapidly than before being frozen. Use the product soon after thawing and do not refreeze.
SUMMARY

Be sure to select poultry of high quality for preparation.

Remember no better product comes out of the freezer than that which was frozen.

Cleanliness is important.

Have equipment and supplies ready before preparation is started.

Be sure to study family needs.

Freeze poultry prepared as it will be used in the kitchen.

Frozen poultry helps to meet family food needs.

Frozen poultry is convenient for use at any time.

Be sure poultry is ready-to-cook before freezing.

Chicken or turkey is convenient for home use any day of the year when in the home storage unit or community frozen food locker.

Package food to maintain its original quality.

Select materials for wrapping that will maintain quality when properly used.

Select containers that have good qualities for maintaining original quality when used properly.

Be sure to label packages with needed information.

Packages placed on trays to go in freezer should be properly spaced.

Hold temperature of storage unit at constant temperature.

Poultry should not be frozen at temperatures above 0°F.

Evaporation will result from poorly wrapped packages.

Six to twelve months is the usual recommendation for holding period of chicken and turkeys.