

Food Freezing Basics:

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POULTRY



Chill home-slaughtered poultry in the refrigerator below 40 F, 6 hours for broiler-fryers and 24 hours for older birds. If refrigerator space is not

available it can be chilled for two to three hours in a large tub of ice water.

Packaging

Wrap giblets separately from bird. Arrange poultry to give a compact, flat package. Tie the wings and legs closely to the body on birds frozen whole.

Poultry may be wrapped in freezer wrap or placed in freezer bags. Remove as much air as possible. Plastic freezer bags conform to the irregular shape of poultry. A good way to remove air is to place the bird in the bag and then plunge the bag in a pan of cold water. This forces air to the top. Quickly twist the top in a goose neck and secure. Dry bag thoroughly.

Warning: Do not stuff birds before freezing. The time the stuffing takes to cool in the bird before freezing and to thaw and reheat it may be long enough to permit growth of food spoilage and food poisoning bacteria.

Pink Meat - Dark Bones

Sometimes the meat around bones of young fryers or broilers looks pink or raw even though thoroughly cooked. This color is thought to come from hemoglobin in the bones of young birds. It usually shows up more with long, slow cooking or in chicken that has been frozen. The meat is safe to eat.

Bones in cooked chicken sometimes become a dark maroon color. This color usually shows up more in frozen chicken and is due to hemoglobin. It does not affect the safety of the chicken.

FISH



Improperly frozen fish develops a bad taste and becomes dry and tough. A number of alternative methods are available for freezing fish properly.

Keep fresh fish as cold as possible. Clean them immediately and freeze at once.

Clean fish as for immediate use. Wash thoroughly. If slime is a problem, rinse fish in a solution of one teaspoon vinegar to three quarts of cold water.

Leave the fish whole or in large pieces if it is going to be stored longer than three months.

Pretreating

Fish are categorized as either fat or lean. Fat fish include mullet, mackerel, trout, tuna, salmon and whitefish. Lean fish include flounder, cod, whiting, snapper and most freshwater fish.

Pretreating before freezing improves the quality of fish stored for more than four to six months.

Place fat fish in an ascorbic acid dip for 20 seconds (2 tablespoons ascorbic acid to 1 quart cold water) to decrease rancidity and flavor change. Wrap and freeze immediately.





North Dakota State University, Fargo, North Dakota 58105 AUGUST 2005 Immerse lean fish in a chilled salt brine of ¼ cup salt to 1 quart water for 20 minutes. This treatment firms the fish and reduces drip loss when thawed.

Packaging

One of the best methods is to wrap fish with a cling plastic wrap and then overwrap with a freezer wrap. Squeeze out as much air as possible.

Fish may be placed in freezer bags. Submerge the bag in a pan of cold water to force the air out. Do not let water flow into the bag. Seal the bag by twisting and a goose neck.

■ ALTERNATIVE FREEZING METHODS

Glazes

Ice - Freeze unwrapped fish. Then dip frozen fish in near-freezing ice water and return to freezer. Repeat this sequence until the glaze is 1/8 to 1/4 inch thick. Be careful not to break the glaze when handling the fish. Wrap glazed fish for storage.

Gelatin

To prepare the glaze:

- Measure ¼ cup of lemon juice into a pint container. Fill the rest of the container with water.
- Dissolve one packet of unflavored gelatin in ½ cup of the lemon juice-water mixture.
- Heat the remaining liquid to boiling.
- Stir the dissolved gelatin mixture into the boiling liquid.
- Cool the mixture to room temperature.

Dip the fish into the glaze and drain it for several seconds. The glaze will be enough for about a dozen medium-size fillets. Wrap glazed fish and freeze.

Water

Place fish in a container and cover with water. Too much water and large containers will draw out nutrients, cause fish to freeze slowly, and cause a soft texture in the fish because of pressure from the ice.

You should freeze fish first and then add cold water and freeze again. This hastens freezing and reduces pressure on the fish flesh.



Smoked fish may be refrigerated for two to three weeks. Do not store smoked fish in airtight containers in the refrigerator. For longer storage, the fish may be frozen immediately after smoking. Use within three months. Use within a few days after thawing.

Shrimp can be frozen, cooked or raw, with shells on or off. For maximum storage life and quality freeze shrimp raw with head and dark vein removed, but shells still on. Shrimp may be placed in a shallow pan, covered with water, frozen and wrapped.

Be sure to wash and drain shrimp if frozen uncooked. Quickly chill cooked shrimp.

Oysters should be fresh and live. Shuck oysters and wash meat in fresh salted water (½ cup salt to 1 gallon cold water). Drain, package and freeze.

THAWING AND PREPARING - Meat, Fish & Poultry

Frozen meats, poultry and fish are best when thawed in the refrigerator in their original wrapping on the lowest shelf in a container. For faster thawing, place the meat or fish in a waterproof wrapping in cold water. Change the water as needed so it stays cold. You can thaw these foods in a microwave oven. For best quality, cook thawed meat and fish immediately.

You can cook meat, poultry and fish from the frozen state, but you must allow additional cooking time. The amount of additional time depends on the size and shape of the product. Large frozen roasts can take 1½ times as long. Small pieces of frozen fish may take twice as long to cook as fresh or thawed.

When you plan to bread and fry frozen meat, poultry or fish, they should be at least partially thawed first for easier handling. All poultry to be stuffed should be thawed completely for safety.



For more information about food preservation, contact your local office of the NDSU Extension Service or visit our food preservation Web site: www.ag.ndsu.nodak.edu/food.htm

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