

Advantages and Disadvantages of Freezing Foods (published 08-17-2024)

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Freezing foods is probably the easiest and least time-consuming way to preserve your food. Freezing helps to slow down natural chemical changes that can affect nutritional quality or even cause your food to spoil. To help with this there are some things to take into consideration when freezing foods. Many foods can be frozen but there are some that can not be. As with anything there are advantages and disadvantages to freezing foods.

Some of the advantages to freezing your foods are:

- Many foods can be frozen. Foods that freeze well are high starch vegetables such as peas, corn and lima beans, as well as fruits, and meats. *For a full list, visit our UT Publication “Freezing Food” at <https://utia.tennessee.edu/publications/wp-content/uploads/sites/269/2023/10/PB1483.pdf>*
- The natural color, flavor, and nutritive value of the food is maintained.
- The texture of the food is usually better than other methods of food preservation. However, this is a personal preference for many. For best quality make sure to freeze your foods quickly after harvesting to help reduce textural changes in the food.
- It takes less time to freeze foods than drying or canning them.

Some disadvantages to freezing foods are:

- In some foods the texture does change and is undesirable. Foods that don't freeze well are lettuce, cabbage, celery, cucumbers, cooked macaroni, spaghetti or rice, cooked egg whites, meringues and icings made from egg whites, Irish potatoes cooked or boiled, and fried foods. Exceptions are French fried potatoes and onion rings.
- The initial investment in purchasing a freezer and maintaining it is high.
- Freezer storage space may be limited depending on the freezer size.

There is some prep work needed before freezing to help maintain food quality or you run the risk of freezer burn and/or unpleasant textures and flavors. A couple of things to take into consideration are:

1. Does my food, i.e. vegetables or fruits, need to be blanched?
2. Am I using the correct container to freeze in?

Let's start by addressing blanching. Blanching is when you expose your vegetables to either boiling water or steam for a brief time and then rapidly cool in ice water to prevent further cooking. Blanching helps to reduce loss of quality over time. It also helps to stop natural enzymes, which are small proteins in foods, that contribute to unwanted changes in your frozen foods. Enzymes can cause browning, flavor and/or color changes of the food, as well as cause loss of some nutrients. However, you do have to make sure you are blanching your vegetables properly since over-blanching can result in cooked vegetables and loss of flavor, color, and nutrients. Under-blanching stimulates enzyme activity and can be worse than not blanching at all. Another benefit to blanching is compacting some vegetables like broccoli or spinach so they don't take up as much room in your freezer.

For more information on times and what foods to blanch please visit our UT Extension Publications “Freezing Food” at <https://utia.tennessee.edu/publications/wp-content/uploads/sites/269/2023/10/PB1483.pdf>

Fruits aren't typically blanched since most individuals prefer the uncooked texture of fruits. Browning in fruits is common and can usually be controlled by using ascorbic acid (Vitamin C) or some kind of ascorbic acid mixture. You can find these items in the canning section of stores that sell those supplies. Be sure to follow the directions on the packaging of these items to make sure you are using the proper amount.

Natural enzymes aren't the only things that can cause unwanted changes in foods. Rancidity is another. Rancidity happens when fat has been exposed to air over time and begins to spoil creating a chemical change that affects the taste and odor of the food. To help control this be sure to use proper freezing materials and/or wrapping the items to ensure that air is not allowed to reach the food. It's important to remove as much air as possible from the freezer container.

Which brings us to our second consideration of making sure to use the proper freezer container. These containers need to have certain characteristics to ensure the highest quality for your foods when frozen: moisture-vapor resistance, durability, leak-proof, pliability and crack-resistance at low temperatures, resistance to oil, grease or water, protection from absorption of off-flavors or odors, easy to seal, and easy to mark. It's important to avoid containers that are over ½ gallon in size since they don't allow the foods to freeze quickly enough. If you are using rigid containers, i.e. bowls, canning jars, etc., be sure they say freezer safe and/or have a little snowflake icon on the container. If using flexible bags or wrappings make sure they say freezer bags, freezer paper, heavy duty aluminum foil, freezer wrap, or freezer safe on the box. Another option is to vacuum seal your items to ensure you have gotten out as much air as possible. However, vacuum sealers and the supplies used with them can be costly. So be sure to do your research before purchasing and be sure you'll use it on a regular basis.

Have more questions when it comes to food preservation? Your local Family & Consumer Science Extension Agent is a great resource to reach out to for further information.

Additional Resources

So Easy to Preserve

<https://www.fcs.uga.edu/extension/so-easy-to-preserve>

National Center for Home Food Preservation

<https://nchfp.uga.edu/>

How do I ask a question?

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