

Urban Agriculture

POST HARVEST

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Lacto-fermentation

Lacto-fermentation is **the process by which bacteria break down the sugars in foods and form lactic acid**. Lacto-fermented foods include yogurt, sauerkraut, kimchi, and pickles



Dehydration

It is the process of removal of water from food. It is the simplest method and prevents food spoilage by removing water.



Waterbath and Pressure Canning

The food contents are sealed in an airtight container at high temperatures



Oil / Vinegar

Oil and vinegar are used in food preservation because food spoilage microorganisms cannot survive in such an environment.



Cold Storage – Root Cellar

As a sustainable alternative to refrigerated or electrically cooled storage for crops needing cool damp conditions, traditional root cellars are a good option



<https://foodal.com/recipes/canning/crystallized-ginger-candy/>

Sugar Preserving

Sugaring is the process of desiccating a food by first dehydrating it, then packing it with pure sugar. This sugar can be crystalline in the form of table or raw sugar, or it can be dense liquid saturated with sugar such as honey, syrup or molasses.



Salt Preserving

Salt dries food. Salt draws water out of food and dehydrates it. All living things require water and cannot grow in the absence of it. Salt is used to preserve beef jerky by keeping it dry, and it prevents butter from spoiling by drawing water out, leaving just the fat.



Image: <https://www.healthylivingly.com/diet/refrigerating-foods-and-the-process-of-preservation/>

Refrigeration

The most common food preserving method is to **store food in the refrigerator**. Refrigeration (cold temperature) slows down the bad bacterial growth greatly, so food lasts 10 or more times longer to spoil



Image: <https://www.safefood.net/food-storage/freezing>

Freezing

Freezing is the easiest and least time-consuming method of preserving foods. Most foods freeze well—[with the exception of produce with a high-water content, cream-based items, and cooked starchy foods such as cooked noodles and rice.](#)

Food Safety

[In Quebec, food safety is regulated by Ministère de l'Agriculture, des Pêcheries et de l'Alimentation \(MAPAQ\)](#)

Contaminants:

Bacteria

Parasites

Viruses

Chemical and physical contaminants

[Restaurant Condemnations](#)

Food Temperature and Safety

Frozen food should be kept at maximum - 18 °C

Refrigerated foods should be between 2 and 4 °C

Some fruits with skin (tomatoes) should be kept at room temperature or cooled at 12°C

Hot food should be kept at a temperature of at least 60°C

DANGER ZONE: Between 35 – 45°C, bacteria doubles every 15 minutes

Great Tips

Preserved foods should be kept in a cool and dry environment to discourage bacterial growth and spoilage. Most food preservation techniques currently used, combine methods of smoking, drying, sugar and salt, preservatives, refrigeration, acidity and others.

Follow a tried a true recipe from a reputable source.

Questions?

Thank you. Have a great week.