

Living without refrigeration.

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Believe it or not, it *is* possible to live without refrigeration. Long before the advent of refrigerators and freezers, the problems of food storage and preservation had been solved, but this invaluable knowledge has been largely forgotten by our modern "quick and easy" society.

Alternative cooling options:

1. Create A Zeer Pot. A Zeer Pot works through evaporative cooling. To make one, you will need two unglazed Terra Cotta pots that will nest together and leave a space between the pots, wet sand to fill that space, and a wet cloth. Place the smaller pot inside the larger pot, fill the space between the pots with the sand, and cover your pot-in-pot with the wet cloth. As the water evaporates, it pulls the warm air outward, causing the inside of the pot to be cooler than the outside air. Place whatever you want to keep cool in the inner pot. Dampen the sand and cloth as needed.

2. Use Your Solar Oven to Cool. To use your solar oven as a radiant refrigerator, place a jar or pan in the solar oven with two bags around it with air pockets in each of the bags. Alternatively, fill the bags with water — experiment to see which works best. I have read about it both ways. Either put water into the jar/pan and end up with cool water/ice to use during the day for cooling, or put your food straight into the jar/pan to cool it. Adjust your radiant refrigerator so that it is only seeing the clear night sky, and then be sure to retrieve your ice/cool water before the sun comes up, for coolest results.

3. Make An Evaporative Refrigerator. Sometime you might just need more cooling space, and that's where the evaporative refrigerator comes in. Start with a heavy-duty plastic utility shelving unit, and set up the top shelf so that it will hold water. If you are unable to re-adjust the top shelf, you can alternatively find a large shallow pan to place at the top of the shelf.

Once you have your shelf set up where you need it, you will need enough burlap or other heavy cloth to completely cover all around the shelving unit. This might take some piecing together and sewing. Wet the cloth and wrap it around the shelving unit, securing it with clamps or clothespins and leaving some extra length of the burlap hanging into the top of the shelving unit/pan filled with water.

As water wicks down the burlap/cloth and evaporates, this causes a cooling effect and cools whatever you place inside on the shelves. Refill the water on top as needed.

4. Take advantage of the winter. Freeze bottles of ice to bring inside to use in a cooler and keep ice from the weather outside in coolers. It will stay frozen longer than the ice outside. If you want to build an ice house, freeze bins of ice to stack floor to ceiling in an insulated building. Set into the side of this building is an old refrigerator with a few holes punched in the back. Cold air from the ice house can go into the back of the fridge. Put the food in the fridge part, but never open the door to the building until it is time to fill it again in the winter.

5. Put food in a well. Put food in mason jars that can seal tight to keep the water out. They go into fish baskets that are lowered down into the water. Generally used for butter and cheese.

6. Use a cold room, window, basement, garage or shed. A room that stays at a constant lower temperature with low humidity is perfect to store fruits and vegetables and other items temporarily.

How to keep food from spoiling:

On the Counter – We have a misconception that everything we put into a fridge must be refrigerated.

Anything with a high sugar content (like jam) is fine for a few days at room temperature. Butter will last for up to a week. Eggs do not need to be refrigerated.

Leftovers - Cook only enough for the meal so there is nothing left over to worry about storing, or set the food aside in a semi-cool place and eat it for the next meal or snack. Don't be set on certain foods for certain meals. Rice that is left over can be soaked liberally in water, and left covered. The next day, drain the water and warm

back up. If soaked for more than 12 hours, there is a slight fermented taste and smell which is easily removed by washing the cooked rice in a few changes of water before reheating it.

Food preparations that are high in oil and salt keep longer than water based preparations. Stuff that has semi cooked or fried tomatoes or other such fleshy vegetables in them tends to spoil faster than you would estimate.

Cheese -One way to preserve cheese is to cover the cheese with wax. You need to use special cheese wax and not paraffin wax, because paraffin cracks when it dries. Begin by melting the cheese wax in a pan. The wax will not totally come off, so know that whatever pan you use will be a wax-pan from that time on. While the wax is melting, cut the cheese into manageable blocks, no more than what you can eat or cook within a few days.

Gently brush the melted wax over the cheese using a boar's hair bristle brush. This specific brush will often be sold with the cheese wax. Within about thirty minutes or so, the wax will be hardened and then you must hang it in a mesh basket in a dark place. Cheese preserved in this way will keep for up to twenty-five years! Make sure you get mild cheese when you start preserving, because it will eventually turn extra sharp.

Dairy - Historically speaking, milk and cream were kept fresh either in a spring house or an ice-house. If you have a flowing cold water stream nearby, you can use the natural coolness of that water to temporarily refrigerate milk and other perishables. A spring house is built with a channel through which water from the stream is diverted. The milk, in jugs or other containers, is set in the flowing water to keep it cool and sweet. The alternative to a spring house was a stone dairy. The stone walls kept the inner room cool so that fresh milk could be brought down to a cooler temperature before being processed into cultured cheese or butter.

Cultured Dairy - The most ancient method of dairy preservation was not to prevent bacterial growth, but to encourage the right kind of bacterial growth. Traditional Yogurt, kefir, cultured cheese, and cultured butters did not need refrigeration to remain good because they were preserved by bacterial fermentation.

Kefir - Of the traditional cultured dairies, kefir is the easiest and most efficient to make. One of the reasons is because kefir contains all the bacteria needed to make other types of cultured dairy. That means kefir is a good cultured dairy product to know how to make, and to keep on hand.

Dried Yogurt – Make yogurt from fresh milk, then remove some of the liquid. Mix with salt for preserving and make into small balls. It is similar to cream cheese without the sugar. Dry in the sun, covered with a thin cloth, until it becomes a hard consistency. It can be stored for a year without refrigeration and is carried as you travel.

Kishek - Soured yogurt mixed with bulgur wheat that becomes almost like dough. It is made into small balls and allowed to dry in the sun. It can be reconstituted as a stew with meat and tomatoes or ground into flour and baked on top of bread, similar to a pizza topping. It also can be used as a soup stock.

Soft cheeses - packed properly in cloth and glass, keep several days out of the refrigerator. The key is plastic-free storage, since plastic wrap prevents breathing. Preserving the rind is crucial. Cut, semi-soft cheeses with rinds keep one week up to one month, depending on the cheese. Firm cheeses can be consumed safely up to one month or longer, but the flavor changes, becoming more pronounced with age. Feta and cheddar can be stored in glass with plenty of salt.

Meat – Only hunt or obtain meat that you will be able to use within a short period of time. If you have a larger amount, you can dry it into jerky or salt, smoke or brine it.

Fruits and Veggies - Generally, the optimal conditions for storage of fruits and veggies are a temperature between 50 degrees and 55 degrees Fahrenheit (pumpkins, winter squash, and sweet potatoes can tolerate up to 60 degrees) and low humidity. Cabbages, celery, and root crops can handle cooler temperatures, down to 30 to 35 degrees Fahrenheit, and can tolerate more humidity.

FIGURE 1. GUIDE TO SIMPLE STORAGE OF PRODUCE

FRUIT or VEGETABLE	STORAGE GUIDE	APPROXIMATE STORABLE TIME
Beans: String, Green Snap, Wax, Lima	Spread on shelves or benches	2-4 weeks
Beets: All types	Store in bins, boxes, or baskets	9-12 months
Broccoli	Store one layer deep on shelves or benches	2-3 months
Brussels Sprouts	Store two layers deep on shelves or benches	3-6 months
Cabbage: Green, Red, Chinese	Store in bins, boxes, or baskets	6-9 months
Carrots: All types	Store in bins, boxes, or baskets	9-12 months
Cauliflower	Store one layer deep on shelves or benches	3-4 months
Cucumbers: All types	Store two layers deep on shelves or benches	1-2 months
Corn: All types	Store in husks one layer deep on shelves or benches	1-2 weeks
Celery	Store one layer deep on shelves or benches	1-2 weeks
Eggplant	Store one layer deep on shelves or benches	1-2 weeks
Kohlrabi	Tie tops together in manageable bunches and hang	9-12 months
Leek	Tie tops together in manageable bunches and hang	9-12 months
Okra	Store two layers deep on shelves or benches	2-4 weeks
Onions: All types	Tie tops together in manageable bunches and hang	9-12 months
Parsnips	Store in bins, baskets or boxes	9-12 months
Potatoes: All types	Store in bins, boxes, or baskets	9-12 months
Peas: All types	Spread unshelled on shelves or benches	2-4 weeks
Peppers: Green, Bell, Red, Cherry, Banana, Tabasco	Store one layer deep on shelves or benches	1-2 weeks
Salsify	Store in bins, boxes, or baskets	9-12 months
Sweet potatoes and Yams	Store in bins, boxes, or baskets	9-12 months
Squash-Summer: Straight neck, Crook neck, Cymling, Patty Pan, Zucchini; Cocozelle, Chayote	Store one layer deep on shelves or benches	2-4 weeks
Squash-Winter: Hubbard, Acorn, Butternut, Banana, Buttercup, Turban	Store in bins, boxes or baskets	6-9 months
Tomatoes (ripe): All types	Store one layer deep on shelves or benches	1-2 weeks
Tomatoes (green): All types	Store two layers deep on shelves or benches	1-3 months
Turnips: Rutabaga (yellow), White	Store in bins, boxes, or baskets	9-12 months
Apples: All types	Store in bins or boxes	9-12 months
Figs: All types	Store one layer deep on shelves or benches	3-4 weeks
Cranberries	Store three layers deep on shelves or benches	1-2 months
Melons (thin rind): Cantaloupe, Honeydew, Honeyball, Persian	Store one layer deep on shelves or benches	2-4 weeks
Melons (thick rind): Casaba, Christmas Water, Spanish	Store one layer deep on shelves or benches	1-3 months
Pears: All types	Store one layer deep on shelves or benches	3-4 weeks
Quince	Store two layers deep on shelves or benches	3-6 months

Fermented Fruits, Veggies, Tea and Dairy - Sadly most of the news we hear about bacteria is bad – they create illness and disease, and sometimes they can even kill you. In truth – bacteria are largely responsible for keeping us well each and every day. Bacteria help in the synthesis of Vitamins K, B1, B2, B3, B6 and B12, folic acid, pantothenic acid and some amino acids. They also help us absorb minerals, break down toxins and food.

Kefir – provides protein, Vit. A,B,C,K and phosphorus. Loaded with enzymes to help digest food.

Kombucha – has an analgesic (pain reliever) and takes away joint pain. Has probiotic yeast that can treat diarrhea – even parasitic diarrhea.

Cultured vegetables – fermenting increases the Vit C and fills the veggies with good probiotics. Knocks out stomach viruses, colds and the flu. Take a spoonful of the juice every hour to fight stomach cramps and diarrhea.

Recipes:

Yogurt- It's easy to make homemade yogurt using a thermos. Heat one quart of reconstituted nonfat dry milk (add an additional 1/3 cup of dry milk - no extra water - if you like thick, custard style yogurt) over medium heat just until milk comes to a boil, stirring occasionally. Remove milk from heat. While the milk is heating, boil a kettle of water and pour the boiling water into the thermos to sterilize and "preheat" the thermos. Cool milk until it reaches a temperature between 100-120 degrees Fahrenheit. Put 2 Tablespoons of "starter" yogurt (either from your last batch of yogurt or from store bought) in a small bowl and add a small amount of the cooled milk. Stir until yogurt is dissolved. Add the dissolved yogurt to the remaining cooled milk and stir. Empty thermos of hot water (use for washing dishes) and pour yogurt/milk culture into empty thermos and cap. Let incubate for 6-12 hours. The longer the incubation time, the "tarter" the yogurt.

Alternate heating method: Put the yogurt mixture into glass bottles and close the lids. Put inside a cooler. Heat 1 gallon of water to 120 degrees and pour it into the cooler around the jars. Close the lid for 4 hours. Check after four hours and leave for up to 12 hrs. if needed to thicken.

Cheese from powdered milk - If you want to end up with three cups of cheese curds, start with three cups of powdered milk mixed into six cups of water.

3 C powdered milk

6 C water

¼ C white vinegar or lemon juice

Mix together the powdered milk and water in a big pot until all the milk is thoroughly dissolved. Stir the milk over medium-low heat until it reaches 180°. Stir in 1/4 cup vinegar or lemon juice, mixing well. Turn off the heat, cover with a clean kitchen cloth, and let it sit for a few hours until it's cool. When it is completely cool, a solid curd will separate from the remaining whey. Spoon the curds with a slotted spoon into cheesecloth-covered colander to drain. After it drains completely, pick up the edges of the cheesecloth and squeeze the remaining whey out of the curds for really dense cheese, or skip the final squeeze for a moister cheese.

Yogurt cheese – Put 1 quart of yogurt into a colander lined with cloth like muslin. Tie the corners of the fabric and let hang while the whey drains out for 12-14 hours. Remove from bag and salt to taste.

Lemon cheese – Heat 1/2 gallon whole milk to 190 degrees. Add ¼ C lemon juice and stop. Cover the pot and let sit for 15 min. If it doesn't set add a little more lemon. Pour into a lined colander and let drain for a few hours.

Queso Blanco – Heat 1 gallon milk to 190 degrees. Stir or it will scorch. Add vinegar a little at a time. The curds will separate. Pour into a lined colander and let drain for 4-5 hours.

Kefir – add kefir grains to fresh milk. Leave unrefrigerated for 24 hours. Will be done when it is thick like yogurt.

Kombucha – make a tea (green or herbal). Add sugar and a SCOBY (culture of bacteria and yeast). Ferment for 7-10 days then pour into sturdy glass bottles.

3 quarts water

1 C sugar

4-5 tea bags

1 SCOBY

1 C fermented Kombucha

Bring the water to boil. Add sugar and tea bags. Let steep 10-15 minutes. Remove tea bags and let cool. Pour into 1 gallon container and add SCOBY and the Kombucha. Cover with a cloth and let ferment in a dark place for 7-10 days. You can second ferment to flavor it if desired. Some of our favorites – blackberries and sage, honey and vanilla bean, peach and raspberry, ginger and lemon.

Simple Kraut

3 ½ lbs cabbage

1-1/2 T salt

Quarter and core the cabbage then thinly slice. Put in a large bowl and add 1 T salt. With your hands or a pounder massage into the leaves. Should be able to taste without being overwhelming. When the liquid begins to pool, let stand for 45 minutes then massage or pound again. Transfer to a crock, pressing down so the brine covers. Top with one or two of the clean leaves from the outside of the cabbage. Cover with a plate and weigh down with a water filler jar or ziplock bag. Keep under the brine for 4-14 days. Skim off the scum if necessary. Ladle into smaller jars when done and cover with brine. Will store refrigerated for 1 year.

Other Veggies – most any vegetable can be fermented. Soft veggies don't work as well. The basics are clean vegetables and salt.