

Dehydrating Food

Resources:

The Purposeful Pantry (YouTube, FB, Instagram, Website)

The School of Traditional Skills

Dehydrating food is a wonderful way to buy food when fresh and in season and store it. It is very easy. I enjoy this method of food preservation because you cut it and forget it until it is done. I will buy apples, bananas, and mangos in bulk when they are in season and on sale and dehydrate. I will also dehydrate the vegetable greens (radish greens, beet greens, carrots greens) and make them into a powdered and add to eggs, soup and stews.

2 Types of Dehydrators

1. Stackable, has a fan on top and underneath is a column of trays that circulate air across the machine. Benefit: less expensive. However, you do have to rotate the trays towards the fan to ensure the food gets time in front of the fan to dry.

2. Cabinet style has a fan in the back of the machine that moves air across your food evenly. Benefit: does not need as much attention during drying.

Types of Dehydrators: Excalibur, Nesco, Magic Mill and Cosori

Use fresh food or frozen food. If food is old but not perfect it is okay, you can still dry as long as no mold or blemishes. You can use the greens of veggies and make it into a green powder. Do not dehydrate foods with high fat context ex: avocados. The fat can turn rancid. Wash fruit and veggies before dehydrating them.

**My first dehydrator was a stackable one that I got at a garage sale for 5 dollars. It lasted for 2 years. Well worth the 5 dollars and helped me decide to upgrade to a nicer one after it stopped working. You can check facebook marketplace, garage sales, thrift stores.

Fruit

You can pretreat fruit, such as apples, pears, bananas. This fruit will oxidize, meaning that oxygen will get into the enzymes in the fruit and turn it brown.

Pretreating:

1. Put cut fruit in a bowl and cover with a quart of water
2. Add 1 cup of lemon juice, either bottled or freshly juiced
3. Using clean hands, mix the bowls contents
4. Drain the fruit and move them to dehydrators trays

**** The ratio of the lemon juice to water is not crucial. Recipes call for as 1 TBS of lemon juice to 1 cup water. However, if you soak apples in strong lemon solution, they will often have a slight lemon taste. And only leave them in the solution long enough to mix it up and coat each piece.

Other ways to pretreat:

-Spray lemon juice or pineapple juice directly onto the fruit

-If seasoning with cinnamon, you likely will not need to pretreat them because the spice will mask any oxidation in the fruit

Fruits Using a Citric Acid Bath:

1. Combine 2 tsp citric acid to 1 qt water
2. Cut and add the fruit
3. Using clean hands, mix the bowl contents
4. Drain the fruit and move them to the dehydrator trays

Fruits Using Vitamin C Tablets

1. Combine 10,000mg of crushed Vitamin C to 1 qt of water

2. Cut and add the fruit
3. Using washed hands, mix the bowl contents
4. Drain the fruit and move them to the dehydrator trays

Fruits Using An Ascorbic Acid Bath

1. Combine 2 tsp. ascorbic acid to 1 qt water
2. Cut and add the fruit
3. Using washed hands, mix the bowl contents
4. Drain the fruit and move them to the dehydrator trays

***My family loves dehydrated apples, bananas and mangos. I have never pretreated any fruit, my family does not care about the color change. This is perfect for trips, snack food.

Vegetables

Most vegetables, but especially root crops will have to be blanched to stop the enzymatic process that makes food go bad to help the texture of the food last better. Potatoes should be blanched to also prevent oxidation. This does not ruin them, just makes them less eye-catching. Blanched vegetables, especially broccoli and celery, also dehydrate faster and the post rehydration flavor is improved.

Typically speaking, if you would normally eat it raw, you do not have to blanch it.

You can test it both ways and see what way your family prefers.

Blanching dark leafy greens reduces the amount of oxalic acid, something that can prevent our bodies from absorbing vitamins and minerals. You can skip the blanching process if you intend to use the greens in cooked foods or if you regularly eat uncooked leafy greens.

Blanching Process:

1. Bring a pot of water to a rapid boil. While you are waiting, prepare an ice bath
2. Add your vegetables and wait until the water comes back up to a boil
3. Leave them in the boiling water for 3 minutes
4. Using a strainer, scoop the vegetable out and put them in the ice bath
5. Once cool to the touch, remove from the ice bath and place straight into the dehydrator

**I usually do not blanch. I dehydrate vegetables to save for when I am making soup or stew. Every time I go to make soup, I never have carrots, this has saved me many times. I also love to dehydrate mushrooms, they are delicious to add into a pasta dish, they rehydrate nicely in a sauce.

Different Trays and Liners:

Parchment Paper: these liners can be cut out into sheets that fit the tray. You cannot use these more than once

Plastic Dehydrating Mesh: reusable liners that help with air circulation and work for small pieces. These can come with dehydrator or can buy online

Silicon Mesh Liners: like the plastic mesh, but made of silicon, these liners are flexible and reusable. Can buy online

Fruit Leather Trays: These have lips that will keep your puree from escaping your sheet and dripping onto the dehydrator. These also work well for any foods that have not been reduced by cooking down or into liquids you don't want to drip, like broth, which can be dehydrated into shelf stable bullion

Dehydrating Process:

Dehydrating is very straight forward. Place the food onto the trays and place in the dehydrator. The dehydrator will come with a manual with recommended temperature, drying times and thickness of food. For example, apples are recommended to be cut 1/8 - 1/4 inch thick. You can eyeball it, you do not have to be exact. You will have to check the food when the timer goes off and ensure it is dry. If it is not dry, add time to the dehydrator. When it is dehydrated you can then transfer into a mason jar, or other glass jar. Mylar works as well. They do not recommend plastic bag or plastic container, due to air ability to get into those products. Keep away from sunlight and store.

Checking for Dryness:

Plinking: Drop a small handful of food onto a counter or hard surface. Listen for a light-weight link, like dry pasta would sound. If you hear a plop, it's not dry and needs to go back into the dehydrator. Foods to use this method: berries, diced fruits and vegetables, anything round or cubed

Snapping: Using both hands snap a piece of food in half. There should be a satisfying, crisp, dry sound. If it does not snap, it's not dry and needs to go back into the dehydrator. Food to use this method: anything sliced Ex: apples, oranges, bananas, pears, veggie chips, asparagus or carrot slices.

Crumbling: Dehydrating liquids and very thin items should crumble when dry. Pick up a piece from the center of the tray and use 2 fingers to crumble it up. It should easily crumble into a coarse powder. Food to use this method: herbs, greens, anything leafy

Circuit: Fruit leather can be tested by feel. It should be easy to peel it off the liner. If it sticks, it's not done. Feel all around the center (since it dries from the outside in) for any tacky/sticky spots. Food to use this method: fruit leather

Conditioning:

This allows you to double check over a few days to make sure your fruit is dry before you put it away long storage. This is unnecessary for foods that you will be enjoying as a snack in the near future. Place the food into a transparent, airtight jar (mason jar) with a little bit of headspace, or space at the top to allow those pieces of food to move around. Use more than one jar if necessary. Do not add anything else to the jar.

Once or twice a day, flip over the jar and evaluate it top and bottom without opening the lid. Watch for the following: anything sticking to the bottom of the jar that can't be gently shaken off, food clumping in the jar, moisture beading.

Do this for 5-7 days. Vegetable typically only needs 5 days of conditioning, whereas fruit sometimes needs 7.

Any of the above means that it hasn't dried properly and should be returned to the dehydrator for a few more hours.

***If you see mold in the jar at any time, throw the whole jar contents out!

Storing:

To store your food, all you need is an airtight container.

Do not use plastic jars because they aren't always airtight.

Mylar bags are great for camping or packing away a lot of food out of sight in a compact location.

**Use an appropriately sized jar or bag for what you will be storing meaning the contents nearly fill the container. If you have too much headspace, the air in the jar might contain moisture that can soften or spoil your food over time. If you open a sealed container and use some of the food, but want to store the rest, size your container down.

Moisture & Oxygen Absorbers:

Moisture Absorbers: aka desiccant packet or get packs, help control the moisture in your jar. They are best used for fruits, powders, or other food that may clump if you get into it too many times. If your intent to put food in short-term storage that you get into regularly, use a moisture absorber to prevent your food from taking on moisture and getting soft.

Oxygen Absorbers: remove the oxygen in the container and are typically used for long-term storage of foods that you do not plan on opening at all for about a year. Note that every time you open the jar, the absorber will be exposed to air and will no longer be good. Therefore, you will have to replace the absorber every time you open the jar. Likewise, work quickly and store them in a sealed container to prevent them from being used up before you seal your container.

Sealing Your Containers:

All you have to do is put an oxygen absorber or moisture absorber in your jar and add the airtight lid. You can then use a vacuum sealer for jars. Or you can place contents into a mylar bag and seal that.

Storage Time:

Optimal storage time for dehydrated food is approximately 2 years. However, Fruit and tomatoes will not last with all their nutrients for 2 years. Hearty root vegetables may store quite a bit longer. It is like the store bought "best by" date but may be good for longer than that, though their quality may decline. Likewise, dehydrated foods are best within 2 years, but can last much longer, although they will start to lose a little quality.

Rehydrating:

Dried food has less volume than fresh or rehydrated foods, typically with this ratio: 1 cup fresh = 1/4 - 1/3 dried or 1 TBS powdered.

Refrigerator Method:

1. Place your dried food into a jar
2. fill the jar with water
3. Place it in the refrigerator for 8-12 hours or overnight. It will naturally rehydrate as it sits in the refrigerator
4. Drain your rehydrated food. It is not ready to eat or cook.

Long-Simmering Soup or Stew Method:

Dehydrated food lends itself to long-simmering soups and stews. For this method, just add some of your dehydrated food to the broth. Most dehydrated foods will have to rehydrate and cook, both of which takes time. so, give it enough time for that.

Hot Water Method:

1. Add as much dehydrated food as you'll need in a bowl
2. Pour hot water or broth over it. If you're working with fruit, you can also use boiling hot fruit juice. You will have to guess how much liquid you will need. Start small and add more as you need it. You can always pour off any excess later
3. Let it sit for a few minutes, stirring as necessary to make sure that the water reaches all of your dehydrated food
4. When it has rehydrated, about 20-45 minutes, strain it and it's ready to go

Stovetop Method:

This method works well with dehydrated dense vegetables, like celery, that you intend to add to something like a meatloaf

1. Add your dehydrated vegetable to a saucepan
2. Cover it with water or broth
3. Bring it to a simmer. This will help those fibers open and rehydrate a little faster. it will also pre-cook a little bit before you go to use it
4. Drain, if desired and add it to your recipe

Instapot Method:

Follow the same instructions as the Long-simmering soup or stew method. The cooking method and the pressure will rehydrate the food just fine.