

The WELL-STOCKED PANTRY

Imagine the beautiful life of a well-stocked food pantry that can feed you for years to come. In this class we will show you a variety of food storage methods that will help you quickly put up produce and food products from your garden, local tailgate markets, and buying in bulk to easily store the majority of foods you actually use. A rotating pantry insures freshness. We will discuss individual crops and considerations according to your interests. Methods discussed will be dehydrating, freezing, pickling/fermenting, and vacuum-sealing. With these methods there is no need to devote entire days to canning, but instead can be utilized in small batches straight from garden or market. Foods are preserved at their freshest. Small steps lead to breath-taking food resiliency, with no need to run to market when forecasts warn of snow.

This is a practical approach of storing large quantities of delicious, nutritious food to provide for your family all year round, while knowing that you are prepared for any unexpected occurrences which may prevent getting food from the stores.

Quick Storage Techniques

Methods-

- Dehydrating
- Freezing
- Vacuum Sealing
- Pickling/Fermenting
- Refrigeration- Building a Coolbot (Home-made walk-in cooler)

General considerations-

Organic, Fresh, Local, Storage material (Glass vs. Plastic), Live Enzymes, Useful, Price, Ease / time involvement of preservation and of use.

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DEHYDRATION-

1) Garden vegetables can be dehydrated to provide an easy to store product and great flavor to meals. tomatoes, tomatillos, carrot, eggplant, broccoli, squash, garlic, onion, peas, beans, beets, greens, peppers & chiles, herbs, corn, grains, chicos

2) garden fruits can be dehydrated to provide excellent flavor and snacking fun strawberries, apples, berries, kiwi, peaches, plums, bananas, fruit leathers

3) Flavored veggies such as kale chips & jerky

Any green can be marinated in a dressing and dehydrated as a 'chip'. You can imitate your favorite kinds such as barbeque, salt and vinegar, 'cheeze', creamy dressings, etc.

Many veggies can be marinated and dehydrated into jerkey. My favorite is eggplant. Summer squash also works well. Slice veggie into nice size pieces, remembering that things shrink as they dry. Salt them until they are limp, then rinse and squeeze out excess moisture. Marinate in a savory liquid which can include tomatoes, use flavors that pop, then dehydrate until texture suits you. Try Coconut bacon also.

Dehydrated and powdered flavorings

Ex-caliber dehydrator

Teflex sheets

Blender for leathers and powders

Method

Wash produce and pat dry, slice, and arrange on screens. Since they will shrink it is ok for them to barely touch. Turn on dehydrator but keep temps lower than 108 degrees to preserve enzymes. Keep testing and it is a good idea to turn over when curling occurs to dry evenly. There is no one correct dryness....it is a matter of personal preference.

For leather, blend or process fruit then pour it onto teflex and flip when edges curl.

FREEZING

Garden and tailgate-purchased fresh vegetables and fruits can be frozen to provide excellent flavor for soups and cooked dishes. Support your local farmers and buy in flats !

tomatoes, tomatillos, carrot, eggplant, broccolli, squash (after large fresh squash are oven baked you can freeze the extra portions), peas, shellie beans, greens, peppers & chiles, fruits.

Fresh Juices can be frozen for nutrition and flavor

Apple cider, Pear, tomato, berries, even Veggie juices such as Carrot, Beet, Greens

EQUIPMENT

Energy-efficient Chest-type Freezer

Freezer containers and bags

The Process

For most fruits and vegetables a simple washing will suffice. Dry if possible and pop into a freezer container.

Sometimes the moisture in fruits and vegetables will cause them to freeze into one solid block. If you want to be able to pull out a small amount of food instead of the whole bag you can 'flash' freeze them, or lay out the slices individually on a baking sheet, freeze for an hour, then put into freezer bags and freeze.

You can also bread these slices and be ready to grill or fry them with just a few minutes of defrosting.

To remove air from the containers use a straw with a ziplock and suck the air out, use a vacuum sealer with special bags, or use glass jars with vacu seal on the lids.

Another recommended method is to cover the freshly cut veggies with water in the freezer container. Thaw when ready to eat, rinse and add fresh water to cook. This also prevents oxidation.

The advice that has always been given is that Vegetables that are frozen without having been blanched are safe to eat, but have "off" colors, textures and flavors. What blanching does is stop enzymatic activity that decays vegetables. These enzymes can survive freezing temperatures and continue the decaying process even though the food is frozen. Pre-treating the food in boiling water or steam kills off the enzymes. Personally I have found that with the very cold freezing temperatures of modern freezers and the addition of removing air from the container it just isn't necessary if I am using my food in a timely manner, ie, within a year.

Specific foods-

TOMATOES

Quick, easy, unbelievable flavor.

Bag in small amounts as you harvest. To cook sear on high heat for a few minutes until skin is charred and water separates. Dump water, (skin is optional) Return to skillet. Cooking time is minimal. Fresh flavor explosion.

Edamame, peas, and other shell beans

Other veggies and fruits

VACUUM SEALING

Garden and Bulk-purchased dry goods can be vacuum sealed to maintain freshness and flavor for years when kept in a cool place.

1) All Dehydrated Fruits and Vegetables from garden or tailgate market, such as tomatoes, apples, fruit leather, squash, eggplant, peppers and chiles, okra, onions, tomatillos, garlic, veggie powders, oil seeds, seed saving, kale chips, crackers, grains, beans, peanuts, more

2) Bulk purchased Dry Goods from:

- a) Coop
- b) Nuts.com, Frontier coop, and other online sources
- c) direct from Grower

Dried fruit such as turkish figs,sultana raisins, goji berries,mulberries, Dates, coconut, Mango

Nuts such as pine nuts, raw peanuts, Pistachios, apricot kernels, raw almonds, macadamia nuts

Seeds such as chia seeds, flax seed, sesame seeds, Milk thistle, hemp, sunflower

Grains such as amaranth, quinoa, buckwheat, popcorn, rye, oats wheat,

Beans including lentils, chickpeas

Miscellaneous items such as Sugar, coffee, teas, herbs, powders such as maca, Lucuma, flours

Treats such as crystallized ginger and hard candies

Equipment-

Vacuum Sealer-

Food Saver electric or hand-held auto vacuum pump

Jar Sealer attachment

for mason jars

Canning Jars wide mouth

quart and half-gallon

Canning lids

Instructions-

Fill jar leaving one inch space.

Fit attachment over flat lid placed on clean jar. Turn on machine, then press accessory button. In approx. 10 seconds your jar will be vacu-sealed.

Put on twist and date and label contents.

Store in a cool dark place

An alternate method is to use the large container by same company and put jars, both canning or regular,

inside the container and seal it. After opening repeat a few times if jars do not seal immediately.

PICKLING / FERMENTATION

To preserve foods by pickling we are raising the acidity of foods by vinegar or lactic-acid fermentation. Since pickled foods are alive and contain beneficial bacteria which will be killed by heating, we aren't discussing canned pickles here.

Chile Mash and Chiles

Lactic Acid Pickles

Many garden vegetables can be pickled and fermented to provide excellent flavor and great nutrition.

Chiles and peppers, cucumbers, okra, Summer Squash, Eggplant, Onions, Garlic, Beets, carrots, celery, green beans, mushrooms, cauliflower, and more

Brine- 3 Tablespoons of pickling salt to 1 quart of water. yields a 5.4 percent brine.

Recipe attached.

Vinegar Pickles

Freezer pickles- with or without fermentation, acid is acquired with vinegar. Recipe attached.

Kimchi/Krauts

Instead of making a brine to cover the veggies, we are using salt to draw water out of the veggie which will help form the brine. We will use veggies which have a high water content to help this process. Korean kimchi made from chinese Napa cabbage is the most common, although many other vegetables will work well...radish, carrot, beets to name a few. This is similar to sauerkraut except that garlic, onion and hot chiles are used to make kimchi.

The veggie will be torn or cut in small pieces (with carrot or beet shredded is best) Arrange all ingredients and begin to layer them in large canning jar. after each layer of all items pound or press down to begin softening process. Often by the time you are at the top there will be liquid which has begun to escape and may be already covering the veggies. Sometimes this will take a few hours. Recipe attached.

REFRIGERATION-

All fresh produce benefits from cool storage. One problem we run into in WNC is the difficulty with root cellar storage for crops that ripen early, since we have such a long hot growing season. I solved this problem by building a coolbot. This is a homemade version of a walk-in cooler, which can be built nearly anywhere, is relatively simple to build, and can be built in any reasonable size you wish. It is cooled by a modern high-efficiency wall-mount air conditioner and is affordable. I not only put all my freshly harvested produce in it until I can process it, but also can keep my fermented foods, pickles, mash in it all winter. I love it!

See slideshow for quick overview of building process.

www.storeitcold.com

A final note- ROTATION

Remember to label, date, and rotate your inventory. Make an effort to use up all the frozen items before you start adding next year's to the pile. Move your jars in the pantry forward as you add the newest ones

to the back, and remember to use the food! It will provide a beautiful varied diet all year round.

RECIPES

Lactic Fermented Dill Pickles

One quality prized in a good pickle is crunchiness. Fresh tannin-rich grape leaves placed in the jars are effective at keeping pickles crunchy. I recommend using them if you have access to grape vines. You can also use sour cherry leaves, oak leaves, and horseradish leaves to keep pickles crunchy.

The biggest variables in pickle-making are brine strength, temperature, and cucumber size.

Brine strength is important:

Added to 1 quart of water, each tablespoon of sea salt (weighing about .6 ounce) adds 1.8% brine. So 2 tablespoons of salt in 1 quart of water yields a 3.6% brine, 3 tablespoons yields 5.4%, and so on. In the metric system, each 15 milliliters of salt (weighing 17 grams) added to 1 liter of water yields 1.8% brine.

This recipe is for sour, fairly salty pickles, using around 5.4% brine. Experiment with brine strength. A general rule of thumb to consider in salting your ferments: more salt to slow microorganism action in summer heat; less salt in winter when microbial action slows. Too little salt can allow harmful organisms to grow.

Timeframe: 1-4 weeks

Special Equipment:

Canning Jars 1 or 2 quart size widemouth

Ingredients (for 1 gallon/4 liters):

3 to 4 pounds/1.5 to 2 kilograms unwaxed cucumbers (small to medium size)

3/8 cup (6 tablespoons)/90 milliliters sea salt

3 to 4 heads fresh flowering dill, or 3 to 4 tablespoons/45 to 60 milliliters of any form of dill (fresh or dried leaf or seeds)

Pickling spices as wanted

2 to 3 heads garlic, peeled

1 or 2 small chiles per jar

1 handful fresh grape, cherry, oak, and/or horseradish leaves (if available)

1 pinch black peppercorns

Process:

. Rinse cucumbers, taking care to not bruise them, and making sure their blossoms are removed.

. Scrape off any remains at the blossom end. If you're using cucumbers that aren't fresh off the vine that day, soak them for a couple of hours in very cold water to freshen them.

. Dissolve sea salt in 1/2gallon (2 liters) of water to create brine solution. Stir until salt is thoroughly dissolved.

. 3. Clean the canning jars, then place at the bottom of it dill, garlic, fresh grape leaves, and a pinch of black peppercorns.

. Place cucumbers in the jars snugly.

. Pour brine over the cucumbers, place the (clean) lid on. Cover the jar with a cloth to provide some darkness and store it in a cool place.

. Check the jars every day. Skim any mold from the surface, but don't worry if you can't get it all. Taste the pickles after a few days.

. Enjoy the pickles as they continue to ferment. Continue to check the crock every day.

Eventually, after one to four weeks (depending on the temperature), the pickles will be fully sour.

Continue to enjoy them, moving them to the fridge to slow down fermentation. Mine have kept for over a year in the refrigerator, still crunchy and crisp.

FREEZER PICKLES

These are amazing crunchy sweet (if you want) & spicy freezer pickles

3 cucumbers, sliced thinly
1 large onion, sliced into rings
3 T kosher salt
8-10 dried peppers or a couple fresh ones
1.5 c cider vinegar
1 c water
2/3 c sugar according to taste
1/2 t turmeric and some black peppercorns

In a large bowl, let the cucumbers, onion, salt and dried peppers mingle for 3 hours in the fridge. Drain the liquid but don't rinse. Add vinegar, water, sugar, turmeric directly into the pickles. Mix well, let sit for an hour or two, then put in jars. Keep in the fridge for 48 hours, leaving about 1 inch head room. Then freeze.

Keeps up to a year.

Thaw in fridge before using & use up within 3 weeks. Its hard to tell the difference between the fresh and the frozen version. I've done tastings and no one can guess.

KIMCHI (Modern Vegetarian version)

Nappa Cabbages, 1 large or several medium sized, washed with leaves separated 1 inch slices

Salt, Good quality pickling or natural such as Celtic, Real salt, or Himalayan

Pepper flakes, Dried hot OR Chile Mash

Ginger, minced

Green Onion, Chopped

Garlic, pressed

Large canning jar

Arrange all ingredients in piles around your workspace and begin to layer them in jar. After each layer of all items sprinkle a little salt in and pound or press down to begin softening process. Often by the time you are at the top there will be liquid which has begun to escape and may be already covering the veggies. Sometimes this may take a few hours.

Put a towel over your jar in a room-temperature place where you won't forget to check every day.

If your room is warm your kimchee may be ready to begin eating the next day or it may take a few days. Fermentation time is totally up to you. Young kimchee that has just barely begun to ferment is considered a delicacy in Korea and it is my favorite stage.

You can store it in a refrigerator for many months and it will continue to get more sour and soft as it ages but is still good. For large harvests when I know I will be storing a lot of jars for the winter I usually refrigerate it after one day while still very young so the fermentation process slows down.

Dry-Brine Pepper Mash

Pepper mash uses a dry-brining technique – salt, added to the pureed peppers creates its own brine, drawing the water from the pepper cells. This is the style used to create Tabasco sauce.

One pound of pureed peppers makes one pint of mash .Removing about 75% of the seeds, makes them more family-friendly To make a pepper mash, any hot varieties will make a wonderful mash!

For a chunky mash texture, use your food processor with its steel blade. A Vita-Mix will create a much smoother puree – almost that of a smooth sauce, but be careful. Vita-Mix tend to run “hot”, which can kill off important enzymes and heat liable nutrients of your peppers, so don't puree longer than 20-seconds.

1. Follow the general directions on choosing and cleaning peppers.
2. **Weigh the final quantity of peppers freed of their stems and seeds.** This is important because the amount of salt you're going to use is determined by the total weight of her peppers.
3. **You need to add 6-10% of your pepper weight, of salt, to the peppers prior to pureeing or mashing.** That may seem like a lot of salt (it is), but salt is crucial for keeping your pepper mash safe from mold development, enhancing flavors, reducing bitterness, and providing minerals to the lactic-acid bacteria.
4. Puree the seeded peppers and salt. Be careful – don't place your face over the container! When you take the lid off, pepper fumes can be intense, burning delicate eye and nose tissue!
5. Scrape the pepper mash into a glass jar.
6. Latch Jar lid into place.
7. Place Jar in a dark corner, at room temperature, and cover sides with a towel, to keep UV light out of the ferment.
8. After 5-10 days (5-days if temperature is above 72F, and more if temperature is below 68F), refrigerate the mash. If, after a few weeks, you see separation – solids rising to the top, and liquid on the bottom – simply stir the two together.
9. If you see a light gray “fuzz” – normal yeast growth – developing on the top layer, simply scrape it free.

You can add more pureed peppers and salt to the mash. The already-fermented portion will serve as a “starter” for the new peppers. You may also choose to divide the pepper mash in half, adding new peppers to part of it, while allowing the other half to mature to the point you can eat it! Wait at least 6-months if you can. If you wish to create a Tabasco liquid sauce instead of a chunkier sauce you will press the solids and use the liquid to mix with vinegar and seasonings to create your sauce.

Always weigh your salt, resisting the urge to switch to tablespoon or cup measurements. All salt has a different weight depending on the size of its crystal and humidity.

For 1-pound of peppers use 1-ounce (by weight) of salt = 6%; (2 1/3 tbs course celtic salt).

If, after a week, or so, your mash develops surface mold, simply scrape it off and stir an additional 1/2-ounce (by weight) of salt for a total of 10%. Exceeding 10% will reduce the efficiency of the lactic-acid bacteria, and potentially hinder their development, **so resist the urge** to add more salt beyond 10%.

Wait as long as you can to allow your flavors to become more complex.

If sauce is mild you can use it directly on food. For very hot mashes I suggest mixing with vinegar and flavorings and other ingredients if you wish to make your own custom hot sauce.