

Canning/Pickling Info Sheet

Prepared by Nick Smolney for Turtle Bay CSA - Sept. 11th 2012

Types of Pickles

It's more than just cucumbers - pickling includes any fruit, meat or vegetable prepared by a pickling process - whether that be fermented in brine (salt) - or packed in vinegar to aid preservation. The salt should be pure granulated salted or canning/pickling salt - Table salt and iodized salt should be avoided due to the additives in them (anticaking) - Always use commercial vinegars (as opposed to ones you made) - as the acidity percentage is crucial - commercial are required to be at 5% or higher.

- Refrigerator - you create the brine in a pot, pour over the items you are making, let cool, and then stick in the refrigerator for a long period of time (possibly a month or more)
- Canned - these are what you are trying today. You use canning to infuse flavors into the items you are making. By canning you are also making the food shelf stable for up to 1 year.
- Fermented - What you typically buy from a pickle vendor - by fermenting you are able to slowly pull the water out of the food item, this retains more of it's natural texture - think the crunch of a dill pickle. After the pickles are fermented, they may be canned so as to distribute more easily. This method requires a crock, barrel, etc. to be home to the pickles as they ferment. It also requires skimming the brine at regular intervals (might make some people squeamish)

How to start Canning (Ball)- <http://www.freshpreserving.com/guides/IntroToCanning.pdf>

More in depth guide - (USDA) http://nchfp.uga.edu/publications/publications_usda.html

Types of Canning -Pressure vs. Water Bath

- Pressure canning is for low acid foods - which will naturally have a more conducive environment for bacteria, molds, and yeasts thrive. Thus they require a higher temperature to kill off the bad stuff than high acid - this means achieving a temperature of 240 degrees.
 - How do we get that? - remember the ideal gas law - $pV=nRT$
 - Since water turns into a gas at 212 degrees - to get it up to 240 we can hold the volume constant, as the pressure builds so will the temperature.
 - Note that since it's critical to hit 240 - you will need to have your pressure gauge tested frequently (once a year ideally)
- Water Bath is for High Acid foods. Since High Acid foods are already more difficult for the bad stuff to grow in - you can make these recipes with a normal pot of boiling water. All of the items you try today were made with this method. This is also the easiest way to give canning a try as you have most of the equipment already.
- Steps (same for both Pressure and Water Bath)
 - Prepare Jars, Rims and Lids for Canning (heat to 180 degrees)
 - Fill Jars
 - Measure headspace (how close to the top should you fill - it's stated in the recipe)
 - Remove Air Bubbles (that's where something could grow)

- clean rims
 - fingertip tighten rim (this to the point where the rim is no longer freely moving)
- Process (heat for designated period of time in recipe - note sometimes the starting time varies as in the case of brined pickles)
- Let Jars Cool (12 hours)
- Test Seals
- Reprocess any unsealed jars
- Remove the bands on all sealed jars (and look forward the goodness you have locked in)

Tiers of Equipment for canning

- Basic
 - Refrigerator
 - Pot (boiling the brine)
 - Jar
 - Lid
 - Fridge
 - Water Bath
 - Large Pot - big enough to house multiple jars at once - Ideally 2 of these
 - Canning Jars - Jars, Rims, Lids
 - Tongs - for lifting the previous items out of the water
 - Knife - to remove air bubbles
 - Ladle - to lower the filled jars back into boiling hot water
 - (alternatively) Rack to hold jars and easily lift and lower
 - Clock
- Intermediate (hey that wasn't so bad - let me spend a few bucks to make my life easier)
 - Water Bath
 - Kit with all the necessary tools - special jar tongs, timer, and magnetic band/lid lifter - I use this one (\$15) http://www.amazon.com/Presto-7-Function-Canning-Kit/dp/B001V9K8A6/ref=sr_1_5?ie=UTF8&qid=1347354288&sr=8-5&keywords=ball+canning+kit
 - Larger/2nd Pot - have larger pots allows you to process more cans at once. A 2nd Pot makes it quicker to prep (180 degrees) then fill and drop into another pot to bring to boil.
 - Pressure Canning
 - Pressure canner (~\$99) I have this one (\$79) and it works wonders - also doubles as a pressure cooker for cooking in less time - stock takes me an hour instead of all day. http://www.amazon.com/Presto-01781-23-Quart-Pressure-Canner/dp/B0000BYCFU/ref=sr_1_2?s=home-garden&ie=UTF8&qid=1347354789&sr=1-2&keywords=presto+pressure+cooker
- Expert (time to go the extra mile)
 - Decorations - Canned goods make good presents - just good luck getting those jars back
 - PH detector (if you want to try and make your own recipes - carries some risk)
 - Lots of Recipe Books

Recipes

- **USDA provides a bunch for free** http://nchfp.uga.edu/publications/publications_usda.html Same link as above

- **Ball Blue Book** - \$10 - http://www.amazon.com/Jarden-Home-Brands-21400-Ball/dp/B001DIXG9A/ref=sr_1_2?s=home-garden&ie=UTF8&qid=1347355895&sr=1-2&keywords=ball+blue+book
- **Ball Online Recipe List** - <http://www.freshpreserving.com/recipes.aspx>
- Google others - but be aware of the source - I would trust jar companies and colleges/ government agencies over a random person on the internet.

Sound Advice and Helpful Tips

- Always stick to the recipe - Read why
 - <http://www.epicurious.com/articlesguides/howtocook/primers/canning>
 - <http://canningjarsetc.blogspot.com/2009/05/modifying-canning-recipes-and-food.html>
- Cleanliness will be your new best friend - always err on the side of caution if you have any doubt
- Don't have the right salt - check this out - <http://www.foodinjars.com/2010/08/canning-101-on-substituting-salt-in-pickling/>
- Have too much of one thing canned - swap it with other canners in the area - BK swappers - <https://www.facebook.com/BKSwappers> This months meeting (9/20) is in Manhattan for the first time ever - currently in waitlist

Where to get the necessary items

- Salt/vinegar
 - personally I use fine crystal sea salt (see link above about different kinds of salts) from Trader Joes - It's also where I believe I get large jugs of white vinegar (64oz) - if memory serves me its about \$3 - vs. about \$1-\$2 for a 16 oz bottle at most corner/small grocery stores. If it wasn't at Trader Joe's then it was Whole Foods 365 brand which is what I buy for other vinegars (apple, red wine, etc.).
- Jars, Lids, Rims
 - Early in the season (through July) you can find these all over Manhattan. Home Depot, Local Hardware Stores, I've seen them in Pharmacies from time to time. Jack's 99 cents has them - but don't expect the best selection - you might only find a few of the larger sized ones
 - Late in the season to year round.
 - Whole Foods on Bowery - I have found jars and replacement lid packages every time I have gone there. Unfortunately the new one on E 57th does not seem to carry them - Good Price ~\$20 a box for jars - replacement lids seemed about normal price
 - Chelsea Market (whatever the kitchen supply store is there)- ridiculously expensive but they have them year round. Good if you want a couple really big ones
 - Fishs Eddy - My current favorite place to go - It's a little bit south of us, but they have everything, and it's priced decent - also a heck of lot closer than Whole Foods

Questions?

Feel free to email me at nsmolney@gmail.com about any questions you might have.