

Lacto-Fermented Moroccan-Spiced Carrots

January 14, 2018

Catherine Brown, Plant-based Chef, Culinary Nutritionist at @aseatatmytable



Makes 1 quart

Total Time: 5-10 days, plus 15 minutes active prep

Prep Time: 15 minutes

Cook Time: none

Ingredients:

- 4 cups carrots, any color, scrubbed (I used purple and orange)
- 4 cloves garlic
- ½ large jalapeno
- 2 shallots or 1 small purple onion, sliced or roughly chopped
- Zest from 2 lemons
- Juice from 1 lemon
- 2-3 cardamom pods, slightly cracked
- 1 cinnamon stick
- 1 tsp cumin seeds
- 2 tsp coriander seeds, slightly cracked
- 1-2 sprigs of rosemary, washed and patted dry
- 1 Tbsp unrefined, non-iodized sea salt without any anti-caking agents, etc.
- 3-4 cups filtered water

The Process:

1. Wash your containers, knife, cutting board, peeler and spoon in hot soapy water. They do not need to be sterilized, but they do need to be thoroughly clean.
2. Wash and dry all veg, citrus and fresh herbs.
3. Carrots can be left unpeeled or peeled as long as they have been thoroughly scrubbed. Do not use any vegetable soap. You can grate the carrots or dice them. I chose a small dice.
4. The garlic cloves can be smashed and left intact, sliced or chopped. I sliced mine.
5. The jalapeno can be diced or sliced. If you want a little extra heat, use the whole pepper. I diced mine into large pieces.
6. I used a zesting tool on the lemons and then gave the long strands a quick chop so the pieces would be more visible, but you could use a micro plane as well.
7. There are two methods used to introduce the salt to the vegetables. I used the brine method.
 - a. **Brine Method:** Bring 1 cup of the filtered water to a boil and dissolve the salt into the hot water and allow to cool. Add two more cups of cold filtered water to the salt water. Stir with a clean spoon to combine. Add vegetables, zest, juice and spices to your jar. Cover all with the brine, leaving at least $\frac{1}{2}$ " of head space. You may have some extra brine left over. Save this in case you need to add a little extra to your jar if leakage brings the level down too far.

- b. **Massage Method:** Combine all ingredients except cinnamon stick and cardamom pods in a medium glass or non-reactive bowl. Sprinkle the tablespoon of sea salt on top. With a CLEAN hand, massage everything together for five minutes. This will start the process of the salt extracting the juices and moisture from the vegetables. Allow to sit for five minutes and then massage again for another five minutes. Pack everything tightly into your clean jar. While you are filling, add in the cinnamon stick and the cardamom pods. Leave ½” of headspace in the jar. Use a clean, non-reactive spoon to press down the mixture. You should have enough moisture extracted to cover the mixture. If not, make up a little brine as described above and add enough so the veg are completely covered.
8. If you have fermentation weights, fermentation water-sealed crocks or pressure-release lids you can use those, but they are not necessary to achieve a safe and delicious product. If you are not using anything to seal out air and/or keep the veg fully submerged, you will need to attend to your jar/s more frequently (2-3x per day depending on ambient temperature) to ensure the veg are continually submerged.
9. If you are using mason jars (or any other type of regular screw-top jar), do not tighten the lid completely. Leave it secure, but easily removed with one hand. If you have fermentation lids with pressure-release valves, you can tighten them as usual.
10. Store your jar/s at room temperature on a dark shelf or out of direct light where you can attend to it easily (don't put them somewhere where you might forget about them).
11. The warmer the room temperature, the quicker the fermentation will happen. Ideal ambient temperature is 60-70 degrees Fahrenheit. If you are concerned at all about your room temperature, just leave the jar/s out for 24-48 hours to begin the fermentation process and then store the jar in the refrigerator, cold root cellar or basement. It will take much longer for the veg to acquire a nice tanginess, but they will eventually get there.

12. If left at room temperature, begin tasting after about three days. If you prefer more tanginess and a softer texture, allow the veg to continue fermenting at room temperature. When you are satisfied with the flavor and texture, tighten the lid and refrigerate or store in a cold (not freezing) basement or root cellar. You may wish to remove the cinnamon stick and cardamom pods if you think their influence is strong enough. ***The veg will keep for at least nine months.***

NOTES:

- Expect the veg to change color. Some vegetables will brighten or become a much deeper color, others will lose some or most of their color.
- Expect the liquid to become cloudy. You may also see white mold on top. This is perfectly NORMAL and a sign that good bacteria are doing their job. No need to panic. If it bothers you, remove it with a CLEAN non-reactive utensil.
- Expect to see bubbles, both around the edges at the top and coming up from the bottom. This is NORMAL. You may hear a slight release of pressure when you unscrew the lids. If you've tightened your lids a bit too much, a bit of the liquid may spew out. Replace as needed to keep the veg covered.
- By day 3-4 you will notice a slightly sour or acidic smell, not like vinegar, but sort of sour. This is also NORMAL and a good indicator that it's time to start tasting. Be sure to use a CLEAN non-reactive utensil each time you taste.
- If you are using regular, finger-tightened lids, some liquid may seep out. I am keeping my jars on a paper towel-lined tray to avoid a messy clean-up.
- If you notice ANY red or pink mold or black scum, or you smell an unmistakable putrid, rotten-egg smell, this is a sign that something has gone astray. Toss the batch and start over. I have yet to see this happen.

- Any combinations that include garlic and/or onions are going to permeate the room while fermenting if you are using regular, loosely tightened lids. This is not necessarily a concern, just something to be aware of.
- Regular servings of lacto-fermented vegetables are one of the most delicious ways to increase the healthy microflora in your gut. The process has also been shown to increase absorption of nutrients contained in the vegetables and/or reduce phytic acid levels. Phytic acid can inhibit the absorption of certain nutrients. In fact, a push is being made to have fermented foods included in world-wide food guide. You can read more about this [here](#).
- Let me know how it goes. I'm here to help you!