

# Fermentation Pusher Downers

by nicole gugliotti

I am a lifelong lover of all things pickled. On visits home to see family, a peek in the fridge is rewarded with gallon jars of eggplant, cayenne peppers, green cherry tomatoes, cloves of garlic, and handfuls of garden herbs floating in red wine vinegar. When home used to be a short car ride away, I would inevitably leave with several of these jars.

Having recently moved across the country, with no pickles in tow, I found myself missing those jars of salty and sour vegetables. When a friend invited me to her home to learn how to make lacto-fermented pickles, I enthusiastically accepted. That day, Meghan Hintz, a fermentation specialist, walked us through a method of pickling that doesn't use vinegar or require complicated pickling baths. Instead lacto-fermentation relies on the vegetable's naturally occurring lactobacillus and other beneficial bacteria to convert starches in the vegetable into lactic acid. Immersed in a brine, the lactic acid prevents putrefaction, preserves nutrition, and gives the pickle its classic tang.

The process is simple. You mix up a salt brine—most recipes call for about 2% salinity—fill a Mason jar with any combination of vegetables and spices, and cover with the brine. Then wait a few days to a few weeks, with jars at room temperature,



until the fermented vegetables taste good. After that they can go in the refrigerator for as long as they'll take to eat. Very simple and with the added benefit of gut-soothing probiotics—a natural bonus of this type of pickling.

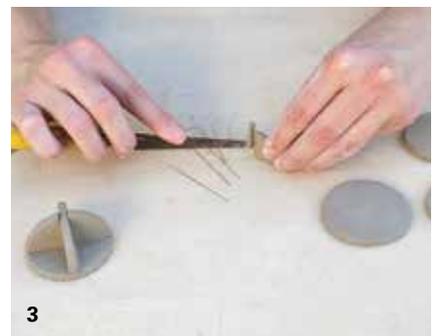
Little specialized equipment is required, just a covered ceramic crock or Mason jar to hold the pickle and something to keep everything submerged. Clean stones or half-moon shaped terra-cotta weights are often used, though many fermenters forego any weight. Meghan coached us on keeping an eye on our jars in the upcoming weeks, pushing the vegetables down as needed to keep them submerged in the brine. Unsurprisingly,



1 Cut several circles of the same diameter from a 1/8-inch-thick slab.



2 One circle will be the base and the additional circles can be cut to fit on the base.



3 Cut half and quarter circles and arrange them on the base.



4 After determining the composition, trace the perimeter of each piece on the base.



5 Miter the edges as needed. Score, slip, and attach each piece to the base.



6 Use a small, stiff brush or rubber-tipped tool to clean up the attachments.

after a few days of neglect, some of my pickles had floated up and grown mold above the brine line. I'm a set-it-and-forget-it kind of person, thus the ceramic pusher-downer was born.

## Testing the Product

Since I was new to fermentation, after putting together a few prototype weights, I shared them with Meghan and Lisa David, owner of Nineveh Assyrian restaurant. They tried out the pusher downers in some of their jars and gave me some feedback that steered refinement of the design.

## Clay and Glaze Selection and Firing

Because the object will be soaking in brine for an extended period, I went with a clay body that would be vitrified after being fired to cone 6. Furthermore, I chose a glaze that didn't contain any colorants or fluxes that might be dangerous if leached. Currently I'm working with a cone 6 English porcelain from Tacoma Clay Art Center and a cone 6 majolica glaze. After testing a few glazes, I settled on the majolica glaze because of the way it pooled just a little in the corners of each connection, giving the whole weight a consistent, smooth surface. I left the lip of the top ring unglazed or, on the flat-topped weights, fired on a stilt and smoothed the dimples left by the stilts after the firing with a Dremel tool.

## Sizing your Pusher Downers

You will want your pusher downer to fit snugly down inside the lid of your vessel without clanking against the jar walls or getting stuck. I make most of my weights for the large-mouth Mason jar, but in order to be able to make them for any size jar, I created a library of fired blanks to select from. For this, I

bought a circle cutting template at a craft store and cut incrementally larger circles from a leather-hard, 1/8-inch-thick slab. After labeling them and letting them dry, I bisque then glaze fired them. I reference these when I want to make weights for a different-sized jar.

## Making the Pusher Downers

Use a basic hard-slab construction technique for these objects. I cut several circles of the same diameter from a 1/8-inch-thick, leather-hard slab. A set of circle cookie cutters makes fast work of the task (1). Clean up the edges of each disc. One of these discs will serve as the base (2). From additional discs, cut half and quarter circles and arrange them on the base (3). Play with the composition of each, the goal being to attach enough pieces that the object pushes down the vegetables, while allowing the brine to flow up and over. Once you arrange the pieces in the composition, miter the edges as needed, trace the perimeter of each addition, and score and attach with water (4, 5). Use a small stiff brush and/or a rubber-tipped smoothing tool to clean up the connections (6).

Next, add decorative details. I like to add a little spire to the center. For some I attach a ring of clay to the top (see photo below). The ring comes into contact with the jar lid, pushing the weight down further into the vegetables. This is helpful for fermentations with smaller or shredded vegetables, such as sauerkraut. This ring can be as short or as long as needed. Once everything has had a chance to stiffen up, I go over the form again with a clean-up tool before bisque firing it.

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## Torshi (Assyrian Mixed Pickle)

1/2 pound Romanesco  
1/2 pound Celery  
1/2 pound Cauliflower  
1/2 pound Cucumber  
1/2 pound Carrots  
1/2 pound Cabbage  
1/2 pound Jerusalem Artichoke  
1 oz. garlic cloves  
12 tbsp. course pickling sea salt  
6 tbsp. curry  
6 tbsp. Baharat (Assyrian 7 Spice)  
Water

Makes about 6 quarts.

Prepare 6 very clean, wide-mouth, quart-size Mason jars. Chop all vegetables into uniform large chunks. Place a combination of vegetables into each jar until they're full. Press the vegetables down a little to fill in the space. Leave 1 inch of space at the top. Spoon 2 tablespoons of sea salt, 1 tablespoon of curry, and 1 tablespoon of Baharat into each jar. Pour water almost to the brim. Press the pusher downer down into the vegetables and place the lid on. Turn only enough to latch the lid. You want to leave the jar unsealed to allow carbon dioxide to escape. Store the full jars at room temperature, on the counter or in a cupboard. Check on the mixed pickles periodically. Once they've reached a flavor you like, go ahead and store them in the fridge. That will halt fermentation and they can be kept in the refrigerator for several months. If they last that long!

Recipe courtesy of Lisa David.

