

The Essentialist

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Lacto-Fermented Vegetable Recipes, by Don Bates

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Introduction & General Notes

This is far from an exhaustive list of what can be fermented, but is just those things which I have worked out well enough over the last few years to be satisfied with.

General Notes:

1. **Measurements:** I like to weigh things. I don't like the ambiguity of "a clove of garlic". (This is something the Europeans figured out long ago, but it just hasn't caught on here.) The following recipes are mostly presented in terms of grams. You can buy an adequate gram kitchen scale for only a few dollars. And, being a scientist, I was trained to think in terms of liters, rather than quarts, but they are nearly enough equal that you can interchange them without a problem. Note that brine concentrations are expressed as gms/liter, which is the number of grams of salt you need to dissolve in a liter (or quart) of water. NOTE: 454 gms = 1 lb.
2. **Sources of veggies:** If you use stale store produce, you just are NOT going to get as good a finished product as if you use very fresh produce. Virtually everything I ferment comes from my garden. I plant a number of crops for the sole purpose of fermenting, and also ferment a lot of surplus of other crops. I harvest early in the morning, when the plants contain their maximum amount of moisture, and process immediately. If you use stale produce, which contains less moisture, you may find that you have to adjust the brine quantities from what I have listed. Produce should be reasonably clean, but you don't need to get silly about it. Remember, you are counting on the bacteria on the veggies to create the fermentation.
3. **Quantities:** the quantities in the following recipes are mostly rather random, and are just based on whatever I used in my best batch. You will probably want to adjust them up or down, depending upon your container size and the amount of produce you have available.

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4. **Salt:** Do not use iodized salt. Also, free-flowing salt (such as comes in those blue cardboard canisters) has additives that cause cloudiness in the fermented product. I use coarse kosher salt.
5. **Temperature:** Fermenting temperature matters. Warmer temperatures allow more rapid fermentation, but the taste and texture are better when fermented at lower temperature. I try to harvest later in the season, when temperatures are cooler. I ferment in the house at 70-80° for a couple of days, until things get good and bubbly, then put it in the basement (60°) to finish. In winter, the basement is typically about 40-50°, a pretty good temperature for medium-term storage.
6. I use onions in lots of things, finding red or pearl onions to be the best. Scallions & leeks ferment OK, but they are fibrous and just don't have nearly as nice a texture.
7. These are all my own recipes. I've made most of them several times, and have refined them to my taste, but there is a lot of slack in all of them. Try my recipe, then adjust as you like.

Kraut & Kimchi

Lower-Salt Sauerkraut

by Don Bates

Since ESP has covered sauerkraut in the past (see [Sources & References](#)), I only include this as an alternative, lower-salt version. In researching various kraut recipes, I noticed that most of them called for quite a large quantity of salt, but that this particular one used only about a third as much. I've been using it for several years, and have never had a fermentation failure with it. I prefer the less salty flavor.

1000 gm cabbage, shredded (~2.2 lb) 8 gm salt

1. Process as with any other kraut recipe. [For example, see [Melanie's Recipe essentialstuff.org/wp-content/uploads/2009/02/sauerkraut2_esl1.pdf](http://essentialstuff.org/wp-content/uploads/2009/02/sauerkraut2_esl1.pdf). Scroll to Sauerkraut II in the file for Melanie's recipe]

Kimchi

by Don Bates

This seems to be the official Korean National Food, because they eat it with virtually every meal. However, it is something of an acquired taste, and is not for everybody. Make small batches, and see what you like before committing a lot of expensive produce to the project. Korean kimchi recipes vary widely regionally, but it is, in essence, an incredible amount of garlic, ginger, and hot pepper with vegetables added as filler. You will want to adjust the intensity of it to your personal taste. We like this with fish and rice. Because of the saltiness of the kimchi, I cook the rice without salt. It leads to a nice contrast of bland rice and zingy kimchi.

I've seen recipes for making this in the traditional Western way of fermentation, salt is just added to the vegetables; but the traditional Korean method is slightly different, as follows:

(Kimchi, continued)

This recipe makes about 5 qts. of a moderately zingy kimchi)

2800 gm Napa cabbage (~6.2 lb)	500 gm daikon radish (~1.1 lb)
1000 gm carrots (~2.2 lb)	600 gm red or pearl onions or scallions (~1 ½ lb)
55 gm fresh ginger, grated	90 gm garlic, minced
4 tsp red pepper flakes	

Brine: 320 gm salt dissolved in 5 quarts water

1. Clean all produce and cut into bite-size pieces. Place in a large container and cover with brine, retaining extra. Let this sit for 3hrs. (Note: veggies will take up the salt during this soak. You can control the saltiness of the finished product by adjusting this soak time.) Pour through a colander, and save the brine. Mix in the ginger, garlic and red pepper flakes.
2. Pack into fermentation vessel. If you stomp this, it will likely release enough water that you don't need any additional brine. If not, add some of the retained brine.
3. Ferment as usual. This can be expected to get quite stinky during fermentation. Find some place out of the kitchen for this, or expect some unkind comments from your spouse. The finished product sometimes smells pretty bad when you open up the container – it needs to breathe like a fine wine before serving.

Carrots

by Don Bates

Surprisingly good. I like to put them in potato salad. You can experiment with adding ginger, caraway, red pepper, whatever.

2200 gm carrots (~4.8 lb)

475 gm red onion, cut in $\frac{3}{8}$ " wedges

40 gm garlic, minced

60 gm salt

brine: 60 gm salt/liter, as needed

1. Scrub, but no need to peel carrots. Cut $\frac{1}{4}$ " thick, in whichever direction you like.
2. Mix all ingredients. Knead a little bit to rupture some carrot cells, and release moisture. Pack into container (I stomp it). If carrots were fresh, enough moisture will come out of them within a few hours to cover; if not, add brine to cover.
3. Ferment as usual. These can keep for a year in the refrigerator.

Onions

by Don Bates

I generally use onions as an additive to other veggies, but you can pickle them all by themselves if you've got a bumper crop. I like pearl or red onions for this, because of their non-fibrous texture and mild flavor.

Onions: red or pearl

60 gm salt/liter brine, as needed

1. Peel & cut onions to desired size; can be left whole if small. Add brine to cover.
2. Ferment as usual. These will be pretty smelly the first few days, so try to find a place that doesn't stink up the whole house.

Salsa

from Don Bates

This sounds bizarre, but is quite delicious. It is tangy and slightly effervescent. I especially like it beside some fried eggs. Make salsa however you like; here is one suggested ingredients list:

Tomatoes

Peppers, hot and mild

Tomatillos

Lime juice

Cilantro

Garlic

Onions

14 gms Salt per quart

Pack about 800 gms (~1 $\frac{3}{4}$ lb) veggies in a wide-mouth mason jar, screw on lid, and let ferment. Fermentation is a little tricky - the mixture is too thick to allow the bubbles to rise, so it wants to get frothy, and bubble over. Keep lid on tight, to prevent this. Then, every day, roll the bottle around to allow the bubbles to work their way up, and then loosen the lid to allow the jar to vent. (Just don't forget to do this, or you could have a nasty mess to clean up.) After a few days of fermentation, this can just go in the refrigerator, with the lid slightly loose.

