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# Lacto-Fermented Vegetable Recipes, by Don Bates

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See also: The EssentiaList: Lacto-Fermentation Recipes, from Jeanette Cheney
The EssentiaList: Lacto-Fermentation Recipes: Condiments & Beverages

#### **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 <u>Sources & References</u>), 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 ( $\sim$ 2.2 lb) 8 gm salt

1. Process as with any other kraut recipe. [For example, see <u>Melanie's Recipe essentialstuff.org/wp-content/uploads/2009/02/sauerkraut2\_esl1.pdf</u>. 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 1/3 lb)
55 gm fresh ginger, grated
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.

## **Pickles, Salsa & Other Condiments**

#### **Pickled Beets**

by Don Bates

These have a delicious beety flavor, without any of the vinegary taste you normally associate with pickled beets.

1000 gm beets (~2.2 lb)

22 gm salt

1/4 tsp caraway seeds

60 gm/liter salt brine, if needed

- 1. Cut off tops of beets and scrub well. I don't peel them unless the skin looks unsavory. I normally cut in ¼" shoestrings, but you can do whatever you like. [Cat's note: *Nourishing Traditions* (2) warns not to shred them or cut in a food processor, as this produces too much liquid which then ferments too fast, making alcohol instead of lactic acid.]
- 2. Mix ingredients and pack in container. It may take a while, but these will normally release enough moisture that you don't need any additional brine. If this is not the case, top off with brine to cover. Ferment as usual. I don't know how well these keep because we always eat them before they have any chance to spoil.

## **Dill Pickles**

by Don Bates

A moderately garlicky and spicy pickle. This recipe will fill a 3-1/2 gal crock. You can scale it to your container size.

12-13 lbs cukes (I like the smaller ones)

250 gm garlic, peeled whole cloves

20 each dill heads

1 Tbs red pepper flakes

16 each grape leaves, crumpled (optional, enhances crispness)

- 3 5 liters brine, 50 gm salt/liter water
- 1. Scrub cukes well, especially the stem area. Cut out any questionable spots.
- 2. Add all solid ingredients to crock. Pack cukes well. Layer ingredients if making a large batch such as this.
- 3. Add about 3 liters brine. This will not likely cover everything. Wait about 6 hrs for water to release from cukes, then add additional brine to cover.
- 4. Ferment as usual. Can be eaten in a few days, but they get much better with longer times. For convenience, I remove a couple of quarts at a time from the crock (with brine to cover) and keep them in the refrigerator. These can easily keep for a year. And don't throw away the garlic cloves they are delicious!

#### **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 3/8" wedges

40 gn garlic, minced

60 gm salt

brine: 60 gm salt/liter, as needed

- 1. Scrub, but no need to peel carrots. Cut 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 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.

#### **Green Beans**

from Don Bates

These are one my favorites. They remain crunchy, and taste like beans, unlike frozen or heat-processed beans. And they don't have any of the nasty vinegar taste of most pickled beans. I especially like them in potato salad, along with some fermented carrots. This recipe uses a lot of garlic and dill, which somewhat buries the bean flavor. Try it both with and without the garlic and dill, and see what you think.

1500 gm green beans (~3.3 lb) 35 gm salt

75 gm garlic, whole clove or coarsely chopped 6 each dill heads

2 tsp red pepper flakes 250 gm onions, red or pearl, chopped

brine: 60 gms salt per liter, as needed

- 1. Remove ends of beans, then cut into 1 ½" 2" lengths.
- 2. Mix all ingredients. Pack very tightly in container. (I stomp it, to break the cell walls, and release water from the beans.) Wait a few hours for water to release, then add brine (perhaps two cups) to cover. Ferment as usual. These will keep in the refrigerator for at least a year.

## **References, & For More Info**

## **References**

- 1. Don Bates
- 2. "Nourishing Traditions" by Sally Fallon & Mary G. Enig, PhD.

# Related ESP printable pdf files

- The EssentiaList: Lacto-Fermentation Recipes, from Jeanette Cheney (essentialstuff.org/wp-content/uploads/2011/07/LactoFerm-Recipes-JCheney EsL.pdf)
- The EssentiaList: Lacto-Fermentation Recipes: Condiments & Beverages (essentialstuff.org/wp-content/uploads/2011/07/LactoFerm-Condmt-Bevg\_EsL.pdf)
- The EssentiaList: Pickling & Lacto-Fermentation Intro, Sources, & Recipes (essentialstuff.org/wp-content/uploads/2009/02/picklingsources\_esl.pdf)
- <u>Gathering Summary: Homemade Sauerkraut, & introduction to Lacto-Fermentation (essentialstuff.org/wp-content/uploads/2009/02/sauerkraut-mhoerner\_102208.pdf)</u>
- The EssentiaList: Pickling & Lacto-Fermentation Intro, Sources, & Recipes (essentialstuff.org/wp-content/uploads/2009/02/picklingsources\_esl.pdf)
- The EssentiaList: Sauerkraut 3 Recipes Including Melanie's Recipe (essentialstuff.org/wp-content/uploads/2009/02/sauerkraut2 esl1.pdf)