



Probiotic Pickling Crock

Instructions, explanation and recipe booklet



Pickling vegetables in a natural fermentation process

General information:

Why should you pickle vegetables in a natural way?

We reconstruct the process of vegetables pickling with the same fermentation process which was done in ancient periods to preserve them.

The process is done by itself with the vegetable's own juices, with pressure applied to them and without any addition of substances, except sea salt.

This preservation method is the only one that preserves the natural components in the vegetable and meanwhile produces probiotic bacteria that is great for us.

What the good bacteria need for to multiply is glucose from the plant without oxygen, and these are precisely the conditions in the crock.

A quarter cup of natural sauerkraut is equivalent to a large number of probiotic pills and alternative dietary supplements.

The Uniqueness of Pickling in a Clay Crock:

In the process of fermentation, fermentation gases are released. They go out through a tiny opening in a lid that serves as a one-way valve. The valve allows the gases to exit but blocks the oxygen from entering. This creates a space without oxygen, which is the main cause of the decay. These conditions provide an excellent environment for good bacteria to work and decompose the vegetable for us and to pickle it without any additional substance - not vinegar nor any other industrial chemical substance that accelerates the process and harms our health!!!



What vegetables can you pickle?

You can ferment almost any vegetable: cabbage, cauliflower, carrot, turnip, radish, kohlrabi, cucumber, beet, fennel, red onion, eggplant, kale and you can also ferment apples to create natural cyder.



If you make a mixture of cabbage with another vegetable - it is recommended to maintain the following ratio: 75% cabbage, 25% other ingredients.

But most important – be creative! Don't be afraid to make mistakes. This is how you learn to make great recipes!

The Principals of Pickling:

The quantity of the ingredients - varies according to the size of the crock you have. Do not fill the it to the end, otherwise you will not be comfortable working. Fill only about 3/4 of the size of the crock so you could add the weights too.

The amount of salt - a tablespoon of Himalayan or Atlantic sea salt - per liter of vegetables.

Cleaning - Keep the work surface, dishes and hands clean.

Preparation:

Cleaning - wash the crock, lid and weights well with water, sponge and dry them off.

Seasoning – you can add any seasoning you want: caraway, rosemary, hot pepper, fennel, parsley and turmeric. You can also add a little bit of sugar when using certain vegetables. Everything is according to your own taste



Salt – the usage of salt is for both flavor and to help in the fermentation process.

Liquids – it is recommended to let the vegetable ferment in its own juice only, without the addition of extra water. If you need some more liquids, you can use a juicer to juice the liquids out of celery or cabbage and use them instead.

If you still lack some liquids – boil 1-3 liters of water, depending on the vegetable and the size of the crock. Let the water cool.

If you use real bottled spring water, there's no need to boil them.

The vegetable must be fresh unless it will not drip enough liquids and you'll have to dilute it with water. How would you recognize a fresh cabbage? If its outer leaves are darker than the inner ones, it's fresh. In addition, if it's too lightweight – it's not fresh.

Basic Pickling Actions That are Suitable for All the Recipes:

1. Slice the vegetable into thin slices and transfer into a bowl.
If you chose to use cabbage – set aside 2 large leaves that you'll later use to cover the vegetable in the crock.
2. Add Himalayan/Atlantic sea salt, 1 tbsp per 1 liter/kg of vegetables. Leave a little bit of salt to the end too. You can also use the size of the crock to calculate how much salt you need.
3. Stir well using a spoon or your hands.
4. You need to soften the cabbage in order to let the salt get into it properly. It is best to use the compression stick to do so. Hard vegetables, such as cauliflower or carrot, do not need to be soften.
5. Massage the mixture using your hands until the liquids drip out.
6. Cover the bowl and let it rest for 20-60 minutes. The salt will cause the vegetable to drip even more liquids.
7. Transfer the mixture into the crock, including the liquids, and compress using the compression stick. Leave a space of 1/4 of the crock's size for the weights. picture 5
8. If you chose cabbage, put the 2 leaves from earlier on top of the vegetable to prevent pieces from floating.
9. Add the 2 weights on top, one on the right and the other on the left so you'll create a circle and press them down with your fist to release air pockets. Picture 6
10. The liquids should be minimum 2 cm above the weights. If there aren't enough liquids, grind some cabbage and use its liquids as a substance to water. This also speeds up the process a little bit and adds vitamins. You can also grind celery, but since it's saltier you can reduce the amount of the added salt in the recipe. You can also use boiled and then chilled water, or spring water.
11. Before closing, it's important to clean the vegetable well, so no piece would float. Clean the inside of the crock and the ditch,
12. Close the lid and pour water into the ditch in the lid until it's 3/4 full.
During the process the water evaporate and you need to add more.



It is best to keep the lid closed during the fermentation. If you'll open the lid – oxygen will get inside and mold could form.

It is recommended to separate between the bottom of the crock and the surface you put it on with any dry, solid material so the bottom could be ventilated.

The pickling process takes between one week to one month – according to your patience and the kind of the vegetable.

When the process ends, you can transfer it to a glass jar and put in fridge.

The low temperature stops the fermentation process and the vegetables can be kept for up to 6 months.

You are welcome to update on our website and Facebook page, we keep posting new recipes and useful tips.

Important tips:

What is the purpose of the salt?

The main purpose of the salt is to preserve the vegetable and add flavor. In addition, the salt causes the vegetable to be crunchier.

What salt should you use?

The most recommended salt is Himalayan salt – salt originating from rocks. In the 2nd place there's the Atlantic sea salt. Both salts contain minerals that enrich the pickling.

It is not recommended to use regular salt! Regular table salt or coarse salt contain high percentage of sodium.

How much salt should I add?

About 2-5%. 1tbsp of salt per 1 liter/kg of vegetables.

Add salt according to your own taste – taste the mixture. The mixture should be just a little saltier than you like.

Make sure to mix the salt well so it'll get into the vegetable properly, because places without salt brown and spoil.

Adding too much salt causes the vegetable to shrink.

Adding too little salt causes the vegetable to be softer and shorten its life.

After you transfer the produce to the glass jar and put it in the fridge, it'll last up to 6 months.

Want to slow down the time of the fermentation in the summer? Add more salt. But please note: adding too much salt will slow down the activity and multiplication of the probiotic bacteria.

How to clean the crock?

You do not need to sterilize the crock before each use.

Best – deep cleaning with a sponge, warm water and some and then dry in the sun.

In case there's mold that lasts even after deep cleaning – you can sterilize the crock.

How to sterilize? Place the lid the weights in a pot, add 3.5 liters of water and/or 1/2 cup of vinegar and bring to boil over medium heat for 10 minutes.

If you have finished one cycle and you immediately proceed to a new cycle – it's recommended to not even wash it.

The bacteria that's left in the crock will act like "starter" for a faster start in the next fermentation. Never put it in the oven! The crock may crack

How does the temperature affect fermentation?

The ideal fermentation temperature is 18-22°C.

Therefore, pickling in a clay crock is the safest and most efficient, since the clay is a great insulating material and maintains a constant low temperature.

On very hot days, the fermentation time is shortened. It can last for one week only

Is it possible to control the duration the process, to shorten or extend it?

It is.

Two main elements influence the fermentation process - the amount of salt and the temperature.

A lot of salt + low temperature = slower process. In the winter the process is slower - want to accelerate it? Add less salt.

A little salt + high temperature = faster process. In the summer the process is faster - want to slow it down? Add more salt.

How do you identify a failed or successful fermentation?

If the cabbage is brown or pink, if there is a musty smell. You could mostly taste it - spoiled taste familiar to all of us.

If a white pink layer appears above the weights that looks like mold, do not worry, it's not mold.

These are the natural yeast that are present in every vegetable.

You can remove the layer and eat the vegetable.

If there is mold on the outside of the crock, it's okay. It does not affect the contents of the crock.

Probably, during the preparation process, some juice came in contact with the outside of the crock and absorbed in it. In this case simply sterilize the crock according to the explanation above and continue the process.

Place a buffer between the bottom of the crock and the surface where you place it, so that the bottom is ventilated.



How long do I need to wait?

The process of pickling takes between one week and one month, depending on your vegetable and patience.

Why should I wait a month?

The fermentation process can be divided into three stages in which three types of probiotic bacteria are formed:

1. Days 1-3 - fermentation begins. carbon dioxide is emitted, which pushes the oxygen out. The bacteria called *Leuconostoc mesenteroides* is responsible on that process.
2. Days 3-16 - the glucose in the vegetable is broken down and turned into lactic acid. This acid preserves the cabbage. The *Lactobacillus plantarum* & *Lactobacillus cucumeris* bacteria are responsible for this process. If you put too much salt or if the temperature is too cold, you make it difficult for these bacteria to work for you.
3. Days 16-30 – the acidity regulates. The *Lactobacillus brevis* and *Lactobacillus pentoaceticus* bacteria finish their work and lower the acidity level to the safe level, below 4 pH. In addition, they deepen the acidic flavors of fermentation.

We need these friendly bacteria and being patient will eventually be worth it.

How to store it?

Do not store the weights in the crock and do not close the lid, but place the weights on the sides of the crock, one at a distance from the other, and place the lid on them upside down.



Recipe 1: Plain Sauerkraut – Basic

Ingredients:

3kg white or red cabbage – about 3 cabbages

3-4 tbsp Himalayan or Atlantic sea salt

If needed: boiled and cooled water, or mineral spring water.

The principle of preparation instructions for all recipes:

1. Cut the cabbage into small strips or cubes, without the stem. Keep two large cabbage leaves on the side.
2. If you use extra vegetables, chop it as well or grate in a grater.
3. Transfer the mixture to a large bowl, add the salt and mix well using your clean hands or a spoon.
4. Squeeze the mixture with the compaction stick for a few good minutes to infuse the salt.
5. Massage the mixture with clean hands until the mixture softens and liquids begins to drip.
6. Leave the mixture with salt for about 20-60 minutes
7. Place the mixture in a bowl and squeeze it using the wooden stick until it's 3/4 of the height of the crock.
8. Place the 2 whole cabbage leaves from earlier in order to prevent small pieces of vegetables from floating.
9. Insert the two of the weights in, facing each other and press them until the liquids cover about 2 cm above the weights. If there is not enough liquid, add the juice of the vegetable you ground, or add the boiled then cooled, or mineral water, the liquid should be a minimum of 2 cm above the weights.
10. Make sure no vegetables float out of the liquid. Clean the inside of the crock thoroughly from any vegetable residue.
11. Place the lid in the ditch and pour regular water until they reach 3/4 in height. During the process, make sure to add water in the lid ditch according to their evaporation rate.
12. Leave the crock at home, at room temperature. After two days you'll hear bubbling sounds and you will see bubbles coming out of the lid valve. That is a sign that the fermentation has begun. Sometimes the bubbling will come late, but do not worry.

After a week to a month, if you did not open the lid in the middle, open the lid and the probiotic cabbage is ready. Transfer to a glass jar and place in a refrigerator.

Recipe 2: Sauerkraut+Ginger+Carrot+Garlic

The carrot's sweetness comes in contrast to the intense taste of garlic or ginger and the pickling tastes sweet and tasty.

Too much garlic can turn the sauerkraut into bitter.

Start with 2-3 small garlic cloves, gradually increasing the amount until you reach the desired taste.

Want to remove the smell of garlic from your hands?

This is the stainless steel trick!

Rub your hands with soap on the handle of a stainless steel tap, or stainless steel cutlery, then dry with a towel. The tap will shine - and your hands will be clean and without a trace of the smell of garlic.

Do not add too many carrots

If you add too many carrots, the sugar level is greatly increased in fermentation, and the taste of the pickling will be too sweet.

So as with the garlic, start with 2-3 carrots and gradually increase until you achieve the desired balance

The rule for adding other ingredients to sauerkraut: 75% cabbage, 25% other ingredients.

It can be kohlrabi, cauliflower, radish, and more... You can remove the garlic or ginger from your recipe – as you wish

Ingredients for a 4.5 liter crock:

If you have a different sized crock, calculate the quantity ratio accordingly.

3 fresh medium cabbages. Green or purple - about 3kg

5 carrots

5 garlic cloves

3 tbsp Himalayan or Atlantic sea salt

Preparation - Basic preparation, as in the first recipe.

The duration of fermentation is between 1-4 weeks.

When you open the pot, transfer the fermented cabbage to glass jars and place in the refrigerator.

Recipe 3 – Sauerkraut+Apple Cyder

Ingredients:

3kg cabbage – three white or red cabbages.

About 3-4 tbsp Himalayan or Atlantic sea salt

9 apples

3 teaspoons grated ginger + 3 teaspoons ground cinnamon + 3 cloves.

Preparation - Basic preparation, as in the first recipe.

The fermentation time is between 5-7 days.

When you opened the cauldron, transfer the cauliflower cider to glass jars and place in the refrigerator.

Recipe 4 – Latvian Style Sauerkraut

Ingredients:

3kg cabbage – three white or red cabbages.

3-4 tbsp Himalayan or Atlantic sea salt

1-2 green apples

1-2 tsp caraway seeds

Preparation - Basic preparation, as in the first recipe.

Recipe 5 – Pickled Mixed Root Vegetables

Ingredients:

Cabbage, cauliflower, carrot, beet, red bell pepper, garlic, parsley. Celery – all together 3kg

2 tbsp Himalayan or Atlantic sea salt (in this case it's 2 and not 3-4 because these vegetables are naturally saltier)

Hot pepper, as you like

Ginger, as you like

Preparation - Basic preparation, as in the first recipe.

Recipe 6 – Russian Sauerkraut

Ingredients:

1/2kg cabbage
2 green tomatoes
2 bay leaves
2 garlic cloves
1/2kg cabbage
1 celery head
1 turnip
2 onions
1 bell pepper
Bunch of dill
1tbsp mustard seeds
1 flat tsp coriander seeds
2 tbsp Himalayan or Atlantic sea salt

Preparation - Basic preparation, as in the first recipe.

The fermentation time is about 2 weeks.

When you opened the cauldron, transfer the cauliflower cider to glass jars and place in the refrigerator.

Recipe 7 – fermented green tomatoes

Ingredients:

2kg small green tomatoes
2 tbsp Himalayan or Atlantic sea salt
1 tbsp dill or coriander seeds
4 peeled and pressed garlic cloves
1 another hot pepper, halved

Preparation:

Dissolve the salt in 2 cups hot water. Add 1 cup of cold water to bring them to room temperature. Put in the crock the dill or coriander seeds, the garlic and the hot pepper. Add the green tomatoes and leave some room to the weights. Pour in the salt water, add the weights and press.

Close, add water to the ditch and wait 4-12 days.

After the tomatoes has fermented, put them in the fridge.

Recipe 8 – Pickled Garlic

About 2 kilos of fresh Balladic cucumbers. It's important that they'll be small. It is recommended to soak the cucumbers in very cold water for a few hours to refresh them

About 3-4 garlic heads

Dill flowers or leaves or tarragon

Red or green bell pepper

1 Hot Pepper

About 4 tbsp Himalayan or Atlantic salt

3.5 liters of boiled and cooled water.

6 grape leaves - which make cucumbers more crisp - or oak leaves.

Spices according to your personal taste, like coriander seeds and more.

Instructions:

Mix well the water and salt and make sure the salt dissolves completely.

Wash the vegetables thoroughly and dry them on a clean towel. Slightly chop the end of the cucumbers.

Put the dill first, then the garlic, and finally the cucumbers, like standing sticks, and the grape leaves between them, in the crock. Press well and tighten everything.

Pour in the salt water. Taste the water, it should taste like the ocean.

Close the lid and pour plain water in the ditch. If the cucumbers are floating, put in the weights.

It should be ready in 3-7 days, but you can wait a little longer – it improves the pickling.

Another pickles recipe:

1 tbsp Himalayan or Atlantic sea salt per 1 liter of water

Mineral water or boiled water

Balladic cucumbers

1 tbsp black pepper

1 tbsp mustard seeds

8 garlic cloves

1 bunch fresh dill

6 grape or oak leaves

Preparation: like the recipe above.

Recipe 9 – Fermented Grain Beverage, Russian Soda – Kvass

A drink to lower cholesterol and sugar levels in the blood. Great for weight loss and energy.

In Russia, people claim that whoever drinks this beverage on a daily basis is "as healthy as a horse"...

The recipe is suitable for 2 liters crock. If you have a larger one, change the ratio accordingly.

Ingredients:

1/2 cup whole oatmeal or wheat/barely

2 liters water

2 tbsp sugar or 1 tbsp raisins – an option to accelerate the process instead of yeast.

Preparation:

Soak the grains in water overnight. Clean the floating debris.

Sprout the grains for two days. From half a cup of seeds you will get a glass of sprouts.

Wash the sprouts and place them in the 2 liter crock.

The duration of fermentation is about 3 days. a white layer of yeast will be formed on the surface, which you can remove without any problem.

Strain the liquid with a sieve and the drink is ready.

The taste will be like unsweetened club soda with lemon.

If you have not added sugar at first - you can add lemon or honey, fruit juice such as carrots, beets or apples, at a ratio of 1: 2 or according to your taste. Some people add wine – try it.

Put in the refrigerator, and it will last up to one week. It is recommended to drink it 30 minutes before each meal.

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every week on our website or on our Facebook page.
It is important to update on the newer versions of this
booklet on our website, according to the date at the top of the page/**

Take care!