



Making Sauerkraut and Dill Pickles

now with a special chapter on Kimchi

We teach you the secrets
to making wholesome and nutritious
dill pickles and the best sauerkraut
you have ever eaten.



By Jim Leverentz

A Fermented Chef Publication

Thank You for choosing the
YOU-MAKE-KIT BRAND
SAUERKRAUT & DILL PICKLE KIT

This is a complete home pickling kit containing everything needed to teach you the secrets to making your own wholesome and nutritious deli style dill pickles and the best fresh sauerkraut you have ever eaten. You supply the fresh vegetables.



Your Kit Includes:

One Gallon Stoneware Crock

This crock is manufactured in the USA and is lead free.

Cabbage Stomper

This is a non- reactive (no metal) nylon potato masher used to pack cabbage into the crock.

Caraway Seeds

A member of the parsley family, caraway seeds are quite aromatic and are most commonly used in European cooking. (Germany, Austria and Hungary)

Dill Weed

Botanically known as anethum graveolens, dill weed is a member of the parsley family. It is native to the eastern Mediterranean region and western Asia. To most of us, dill weed is associated with pickles. In Europe and Asia, dill has long been a staple herb.

Juniper Berries

Juniper Berries grow wild throughout the Northern Hemisphere and are used widely in Scandinavian and French kitchens. They are used in Northern Europe and the United States in marinades, roast pork, and sauerkraut. They enhance meat, stuffing, sausages, stews, and soups.

Pickling Spice

A traditional mixture of allspice, dill seed, ginger root, chilies, bay leaf and other spices used to flavor brines. Commonly used in making pickles and corned beef.

Food Grade Plastic Bag

When filled with water, the bag creates an air lock seal inside the crock during fermentation. The bag will also hold down the cabbage or pickles and prevent air from contacting them.

Preserving Food By Pickling

Pickling is one of the oldest methods of preserving food. It involves placing food in an acid environment to prevent undesirable bacteria growth. There are two ways to achieve this acid environment.

One method is by salting food to extract water by osmosis which then dilutes the added acid, usually vinegar. In the case of curing pickles, cucumbers are placed in brine which draws out some of the water and dilutes the added vinegar. They are then stored under conditions to encourage lactic acid producing bacteria growth. Salt and vinegar act together to flavor and create the proper acid environment for further fermentation.

Another method involves salting the food and subjecting it to the proper conditions for desirable bacterial growth. In the case of sauerkraut and kimchi, the cabbage is salted and kept anaerobically (without oxygen) at room temperature until sufficient growth of lactic acid producing bacteria. The water drawn out by the salt combines with and dilutes the lactic acid and forms the pickling brine.

Making Homemade Sauerkraut

About Sauerkraut

Sauerkraut (sour cabbage) was first made in China during the building of the Great Wall 2000 years ago. The Chinese pickled the cabbage by submerging it in rice wine which preserved it for months. The end product kept thousands of laborers fed and healthy.

The recipe made its way to Europe and, by the 16th century, was being made without the added wine. The Germans started the process of fermenting the cabbage with salt which drew out water creating a brine that would pickle the cabbage.

Sauerkraut's high vitamin C content and its ability to last for a long time made it a perfect food for long sea voyages. It kept many sailors fed and scurvy-free.

Selecting the Right Cabbage

White and green cabbage is best for the first time sauerkraut maker. Common named varieties include Glory, Roundup and King Cole. The best cabbage will be organically grown. Cabbage which has been grown with the excessive use of fertilizers and pesticides can have a hard time with spontaneous fermentation and may spoil before fermentation begins.

Select a cabbage which is firm, has ivory or green outer leaves, and has leaves that are tightly wrapped. The cabbage should seem heavy for its size. This indicates a high percentage of the weight is nutrient rich water which will become the fermentation brine. Green leaves indicate a high volume of vitamin C and other healthy nutrients for both fermentation and you. As with all foods, freshness is critical.

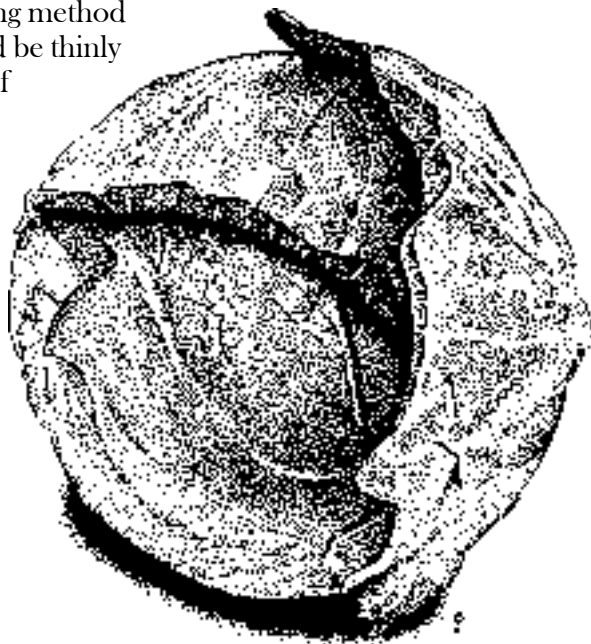
Preparing the Cabbage

Remove any loose leaves along with the first layer of tight leaves and discard them. Cut out any obvious damage or blemish spots. Remove and discard a thin slice from the stem to reveal a fresh end of the core. Now remove two more leaves and set them aside. Take care not to damage these leaves as they will be used to cover the prepared cabbage later.

Cut the cabbage in half from top to bottom. Your natural impulse will be to remove and discard the core. Yes, the core should be removed, but it is a rich source of sugars which are crucial to good fermentation. The core material needs to be grated, using a coarse grater or food processor, and mixed into the shredded cabbage.

Shredded cabbage for sauerkraut should be more like long thin strands of spaghetti than the coarse chop of coleslaw. There are all kinds of special devices used to shred cabbage. They range from attachments to electric mixers to the washboard type food graters. My personal favorite for small (2-4 pound) batches is a sharp chef's knife.

Regardless of the cutting method used, the cabbage should be thinly sliced across the layers of leaves that make up the head. The width of the strands should be 1/8 inch or less. While close uniformity in size will aid in uniform fermentation, not all strands need to be identical. Strands wider than 1/4 inch will not ferment evenly and may pose a risk of causing spoilage.



Equipment

Kitchen scale
One gallon pickling crock
Hand potato masher
Large mixing bowl
Measuring spoons
Large heavy food storage bag

Ingredients

3 - 4 lbs. Shredded Cabbage
plus the following per pound of cabbage
1 teaspoon pickling salt
½ teaspoon whole caraway seed
3 whole dried juniper berries

Sauerkraut Procedure

Prepare the cabbage as described above. Weigh the prepared cabbage and place it in a large mixing bowl. Combine the remaining ingredients in a small bowl based on the cabbage weight. The ratio of salt to cabbage is critical. Too little salt will cause spoilage and too much will prevent fermentation.

Sprinkle about 1/3 of the dry ingredients onto the cabbage and mix well using your hands. Repeat this two more times. As the salt is added you will notice that brine will begin to collect as moisture is extracted from the cabbage. This brine is the medium in which the cabbage will ferment. The freshness of the cabbage will determine the amount of brine created. Allow the cabbage to rest for 10 minutes, then mix again. Check the volume of brine and add a little bottled spring water if necessary to ensure that there is enough brine to cover the cabbage once it is packed down.

Make sure that your pickle crock or glass jar is completely clean. Place a layer of cabbage in the crock and use a potato masher to pack it down tight. Repeat this process until all of the cabbage is packed into the crock. Rinse off the cabbage leaves you saved prior to shredding and press them down on the packed cabbage to form a cover. It is important that the crock or jar not be more than ¾ full and that there is about ¼ inch of brine covering the cabbage. Add a little bottled spring water if necessary.

Wash and rinse the heavy plastic bag. Place the bag on top of the cabbage and fill it with about one inch of water. Make sure the bag creates a water balloon which covers the cabbage completely. Make sure that there is no air trapped between the bag and cabbage. The

perfect layering will be cabbage on the bottom, a layer of brine and then the water bag seal. This is critical since any exposure to air during fermentation will cause the sauerkraut to spoil.

Add more water to the bag to create a complete seal against the sides of the crock. Close the bag with a twist tie and place a cover on the crock but do not seal the container. Gases given off during fermentation will escape out from under the plastic bag.

Place the crock or jar in a dark, warm (70-78°F) place for three days. After three days move the crock to a cooler place (68-70°F) for three weeks. It is critical that you do not open the crock or expose the sauerkraut to the air during this time. No peeking!

The sauerkraut fermentation is now complete. I recommend that the finished sauerkraut be used fresh or packed in plastic bags and frozen.

Making Kimchi

Kimchi is a fermented vegetable product unique to Korea. Its origins come from the fact that Koreans are an agricultural people with a diet heavy in vegetables. Unfortunately, the climate of the Korean Peninsula involves four seasons in which winter is one of them. Developing a way to preserve their harvest for the winter was necessary but doing so in a way that preserved the crunchiness of the vegetables is what makes kimchi unique.

Kimchi involves soaking vegetables and spices in a brine. This is not just for preservation purposes. The halophilic (salt-loving) bacteria which survive this brining process produce amino acids and lactic acids which give the kimchi its pungent flavor. The addition of red chili pepper not only adds flavor and heat, but is also thought to possess preservation qualities.

In order to make kimchi year-round, Koreans would store it in glazed pots and place the pot in the ground during the winter so it wouldn't freeze and in a well or stream in the summer to keep it cool.

Similarly, in the following recipes, the weather will dictate how long the kimchi will take to ferment. It is best to check on it periodically when left at room temperature to gauge how much fermentation has taken place before storing in the refrigerator. In warmer temperatures, you may only need to ferment a day or two at room temperature before cold storage.

Kimchi #1

1½ - 2 pounds Napa cabbage, cut in 2" pieces

8 cups water

4 Tablespoons pickling salt

3-4 garlic cloves, minced

1 square inch of ginger root, minced

½ cup thinly sliced green onion

1 Tablespoon sugar

½ - 1 teaspoon cayenne pepper or 1 Tablespoon Korean ground red pepper powder (kochu karu).

Place prepared cabbage into crock. Combine the water and salt and pour enough of the brine into crock to just cover the cabbage. Cover crock with plastic wrap and soak cabbage at room temperature overnight.

Drain just enough of the brine from the cabbage so that brine level is slightly higher than the cabbage. Add remaining ingredients and mix together evenly.

Using a plastic food storage bag, fill the bag half way with tap water, place on top of the cabbage, eliminate extra air from the bag and close with a twist tie. You may have to adjust the amount of water in the bag in order to create an airtight seal over the cabbage.

Leave at cool room temperature (less than 70 degrees F) for 4 to 7 days or until as pungent as you would like. Store kimchi in its brine indefinitely in the refrigerator.

If made during warmer temperatures, ferment the cabbage in the refrigerator. It may take up to 4 weeks to reach your desired level of pungency.

Kimchi #2

1 large Napa cabbage (if cabbage is small, use 2)

1½ cups coarse sea salt

1 Daikon radish, shredded

5-6 green onions, white and most of green sliced thinly

5-6 cloves of garlic (or to taste), minced

1 Tablespoon fresh ginger (or to taste), minced

1 Tablespoon fish sauce (optional)

4 Tablespoons *Korean ground red pepper powder (kochu karu)

1½ teaspoons salt

½ teaspoon sugar

*cayenne pepper may be substituted but only use 1-2 Tablespoons as it is much hotter.

Cut cabbage into fourths lengthwise. Do this by cutting a cross into

the base of the cabbage far enough into the cabbage that you can then pull the cabbage apart into 4 equal lengths of leaves with core and base attached.

Place 1 gallon of water and 1½ cups salt into the crock and mix well. Place cabbage in the crock and let soak for 4–6 hours. If cabbage is not submerged completely, use more brine or soak in another container where the cabbage can be covered.

Mix the remaining ingredients in a bowl.

Drain and rinse the cabbage thoroughly.

Carefully separate cabbage leaves and rub some of the radish/spice mixture on each leaf. After using all of the mixture on each of the leaves, use the outer leaf to wrap the ¼ cabbage to keep the mixture inside. Pack the cabbage quarters back in the crock.

Place a water-filled plastic bag into the crock to create an airtight seal. Leave at room temperature to ferment for 1-5 days depending on the room temperature and your desired level of pungency. Warmer temperatures will require less time.

Store kimchi, covered in the refrigerator.

Brine Cured Dills

About Pickles

In 2030 B.C., cucumbers native to India were brought to the Tigris Valley. There, they were first preserved and eaten as pickles. Over the centuries they spread throughout Europe and by the 17th century made their way to America. In fact, America is named after Amerigo Vespucci, a ship's chandler. He stocked ships with the vitamin C packed pickle which prevented scurvy among the crew members.

Today, pickles can be made three different ways: fresh-pack, refrigerated and cured or fermented. The curing process for making pickles involves placing cucumbers in a brine solution strong enough to prevent the growth of undesirable bacteria but weak enough to encourage the growth of lactic acid producing bacteria. They are further preserved by adding vinegar. Various herbs and spices are added to improve the flavor and allow for some creativity.

Brining is a very old method of preserving fresh produce through fermentation. Pickling salt (pure sodium chloride) and water are mixed to create an anaerobic (without air) environment which encourages lactic acid fermentation while discouraging bacteria that cause spoilage. As a side benefit, the brine is perfect for infusing pickles with other flavors such as dill, spices and garlic.



There are no substitutes for pickling salt in brining and canning. All of our recipes are based on the use of Pure Flaked Pickling Salt. This is important for two reasons. The first is in measurements. For ease of use we have given recipe amounts in volume rather than weight. Since we use flaked salt which is very fine, a given volume of flaked salt can weigh as much as 30% more than table or other salts. Same volume, more salt. The second reason is the additional minerals, additives and treatments present in other salts. These can cause the brine to be hazy, and contribute off flavors or inhibit fermentation.

Picking a Peck of Pickling Pickles

There is a difference between cucumbers and pickles. While both are members of the cucumber family, the pickling variety are smaller, the skin is thinner and lighter in color, and the ends are round and blunt rather than tapered. The best pickles will be very fresh, uniform in size and shape, and have no yellow spots or bruises. Inspect fresh pickles for any signs of mold or soft spots. When possible, purchase pickles which still have a small stem attached. This indicates that care was taken during harvesting to cut the pickle from the vine rather than pull them off, potentially damaging the vegetable. Pickles should be refrigerated until ready for brining.

Recipe for a One Gallon Crock

4 lbs. fresh pickling cucumbers

½ gallon bottled spring water

1/3 cup pickling salt

½ cup cider vinegar

1 Tablespoon pickling spice

2 Tablespoons dried dill weed or 1 large bunch fresh dill

2-4 large garlic cloves (optional)

Prepare the brine by combining water, salt and vinegar in a large container or pitcher. Mix until the salt is completely dissolved.

Prepare the pickles by trimming away any stems right at the base of the pickle. Inspect the pickles again. Just like apples, one bad one can spoil the lot. Carefully wash the pickles just prior to brining.

Place half the pickles into the crock or jar so that they are lying down. Do not stand them on end. Sprinkle one half of the spice and dill over the pickles and if desired, add half of the garlic. Repeat with the remaining pickles and dry ingredients.

Pour the brine over the pickles. The pickles will float and there should be one inch of brine above the pickles when you push them down. If the pickles do not float, they are packed too tightly. If

needed, add a little more water or reposition the pickles.

Place a plate on top of the pickles and add a weight to hold them down. A canning jar filled with water works well. Cover the crock with a clean tea towel and place in a warm place (80°F) for three or four days.

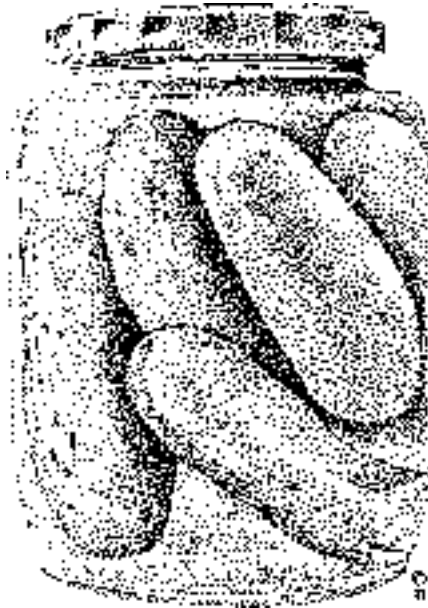
Check on the fermentation after four days. You will need to peek at them daily and skim away any foam or scum which appears. Be very careful not to disturb the pickles or allow them to rise above the brine. Do this for three weeks. Trust me. It is worth it!

At the end of three weeks the pickles are ready to eat. They can be rinsed and eaten right from the crock. You can refrigerate them for use within a few weeks, or they will keep for up to a year if canned.

Canning Brine Cured Dills

Place the pickles on end in sterilized one quart canning jars. Add a few sprigs of fresh dill and an optional fresh garlic clove. Strain the brine through a fine cheese cloth and fill the jars to ½ inch from the top. Seal the jars, place in a large pot and cover with water by 1 inch. Bring water to boil and boil jars of pickles for 15 minutes.

For a better texture, process jars of pickles in carefully monitored 180-185°F water for 30 minutes.



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A Happy Texan, Wesley B.

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