

# Live Fermentation of Vegetables

## Fermented Vegetables

*Good for consumers,  
Farmers & the environment*

### *What is live fermentation?*

In food processing, fermentation converts sugars, starches or carbohydrates into alcohol, and organic acids, via bacteria & enzymes.

Live fermentation is a method of preserving fresh vegetables (& other food items) for later use. An ancient tradition around the world, live fermentation is not as widely used in North America, though interest in the technique is growing. Many popular foods (like beer, wine, cheese, yogurt & bread) have a fermentation component; cider, sauerkraut, pickles & soy sauce are examples of other fermented foods.

### *The procedure*

Vegetables are grated, chopped or sliced, salted and left to soak. Eventually, lactic microbial organisms develop, leading to acidification to a level where harmful bacteria cannot multiply. The processed vegetables can be kept for months in a cool place (root cellar, basement or refrigerator).

### *History of fermenting vegetables*

Throughout time, around the world, people have used fermentation techniques to preserve vegetables for later consumption. For thousands of years, regions & cultures have developed recipes in conjunction with respective climate & crops. Often times these cultural recipes feature highly desired flavors that help identify regions.

Fermentation made food available for future consumption, allowing people to eat nutritious foods out of season.

### *Basic health benefits*

Fermented vegetables contain beneficial bacteria and enzymes that have partially broken down the nutrients in the vegetables. This cooperative relationship helps the human body use less energy to absorb nutrients. Fermented foods are highly active in enzymes, with probiotics that help the digestive system function efficiently. This bolsters the immune system, promoting improved overall health.

### *Economic opportunities*

Whether it's used by a farm operation raising crops for profit or a backyard gardener, fermentation allows for food

processing for future use. If a farmers market vendor doesn't sell out of heads of cabbage on a particular day, that inventory can be returned to the farm, processed into fermented sauerkraut and sold at a later day. Consumers and gardeners can do the same. If there is a bumper crop of cucumbers available, those can be purchased or harvested, fermented and eaten in the future.

### *Environmental impacts*

Because of the simple techniques used in fermentation (in comparison to canning or freezing) as preservation, there is a notable decrease in cooking time and energy/fuel usage.

In addition to the energy costs, vital nutrients and vitamins in many food are often diminished in these processing methods. Live fermentation allows for the preserving of vegetables for months without use of heat, cold or preservatives.



## Live Fermented Sour Pickles

- 1 gallon organic, unwaxed pickling cucumbers
- 2 bunches organic dill
- 2 bulbs organic garlic (peeled)
- 3-4 tablespoons pickling spices
- 5-6 tablespoons unrefined sea salt

Thoroughly soak cucumbers in chilly water. This is a very necessary step unless you picked your cucumbers that day as it helps to perk them up a bit before the fermenting begins.

Make sure all stems and flowery ends have been removed and that cucumbers are thoroughly scrubbed and clean.

Add cucumbers and garlic, dill and pickling spice to jar in layers; sprinkle a little salt between layers.

Prepare a brine of 2 ½ – 3 tablespoons of unrefined sea salt to 1 quart filtered, chlorine-free water and shake it to ensure the salt is fully dissolved. Pour the brine over the pickling cucumbers, spices, garlic and dill until all of the ingredients are submerged in salt water. It usually takes about 2 quarts of salt water to sufficiently cover the cucumbers and spices.

Make sure that the cucumbers are completely submerged beneath the salt water; place a smaller plastic lid or other clean weight in the jar on the vegetables, until it weighs them down sufficiently.

Allow ingredients to ferment for at least a 5-7 days, and up to ten days. Taste to see if they've soured. Once done, simply place them in the refrigerator.

*(recipe adapted from [www.nourishedkitchen.com](http://www.nourishedkitchen.com))*

## Other resources on fermenting foods

### Books

*The Art of Fermentation* by Sandor Katz  
*Nourishing Traditions* by Sally Fallon Morell  
*Preserving Food without Freezing or Canning*  
by the Gardeners & Farmers of Terre Vivante

### Websites

[www.wildfermentation.com](http://www.wildfermentation.com)  
[www.nourishedkitchen.com](http://www.nourishedkitchen.com)  
[www.pickl-it.com](http://www.pickl-it.com)  
[www.westonaprice.com](http://www.westonaprice.com)



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*Adding value to produce  
by preserving vegetables  
through fermentation*

