

## Water Kefir Culturing

The 'grains' we refer to when talking about water kefir aren't grain - they are communal aggregations of beneficial bacteria and yeast grown to produce a steady supply of fermented probiotic-laced water, and the organisms themselves, which look a bit like individual and clumps of cooked tapioca - and when they're really happy, tapioca on steroids. The grains can be eaten for their probiotic properties, too.

If you find a spot in your home where they are happy growing (clue: they replicate like crazy and get big), you'll find yourself eating lots of grains or giving lots away: I got my starter supply of 3.5 tablespoons of grains on January 6, and on January 18, I had 2.5 cups of grains. After giving away a cup or so and eating that amount, as of January 24, I had 4 cups of grains. On February 18, I had 2 quarts of grains fermenting and another 4 cups in the fridge to eat.

The basic solution the grains feed on to grow/multiply is:

- 1 qt non-chlorinated water (i.e., filtered, well, or spring)\*
- 1/8 t. baking soda
- 1/3 cup plain white sugar§
- 1 T. Rapadura®, Sucanat or other evaporated cane juice product  
(i.e., tapa dulce, panela, Florida Crystals®)
- 2 one quart jars with lids (or a half-gallon or gallon jar, with lid)❖

\* If you have a reverse osmosis water filtration system whose water you want to use, or distilled, you need to add minerals back in, so add 1/8 teaspoon of coral calcium or some other calcium carbonate supplement to the solution before adding the grains. Letting tap water sit in a pitcher or bowl for several hours will allow the chlorine to evaporate out of the water.

§ If you want, you can use all Rapadura, sucanat or other organic evaporated cane juice or granulated sugar. Some report success using these sugars, others report their cultures are happier on mostly plain old granulated white cane sugar.

❖ To start with. If yours grow like mine did, you are going to need at least a case of quart jars (12 jars and lids), or go right to getting the half-gallon or gallon containers.

You can add 1/8-1/2 cup (depending on how large your culturing jar is) unsulfured dried blueberries, cherries, fig, or apricot to the solution. The more fruit you add, the more the resulting kefir water will be flavored with that fruit. I use about 1/2 cup of loosely piled dried apricot quarters, or 1/4 cup sliced, peeled fresh gingerroot. The resulting kefir water will come out lightly flavored; if you like a stronger/more pronounced flavor, you can try adding more of the fruit. Or, mix your finished kefir water with some fruity herb tea - I find the Celestial Seasonings' Tangerine Orange Zinger to be quite lovely when I pour my leftover tea into a glass of kefir.

Once you enough grains that you can split amongst 3 or more culturing jars, you can start experimenting with other dried unsulfured fruits (or gingerroot) if you want, such as apple, banana, pear, peach, currants, goji, etc. Do not use fruits with lots of enzymes (papaya, pineapple, kiwi). Lemon is debatable - if you have some spare culture and you don't mind losing some, you can try lemon or other citrus. (If you are interested in fizzy probiotic lemonade, I have a recipe for that.)

## **GETTING STARTED**

### **The Original Instructions I Received When I First Started:**

To start your cultures, put a 2-4 tablespoons of grains in the jars. Fill the jars no more than  $\frac{3}{4}$  full of the pre-prepared solution.

Put the lids on loose: enough gas can build up to cause a bottle with a tightened lid to explode.

Ferment for one to five days. Taste it after day 2 or 3 days and every day thereafter until you like the way it tastes. If it is still too sweet, let it go another day.

Keep the jars at about 72 degrees or warmer. Warmer temperatures speed the fermentation time, so the time it takes during the winter to ferment the water to your taste may be longer than it is during the warmer summer months.

Don't crowd the grains. They need some room and the sugar and minerals to grow. Too many grains in one jar will slow or stop the process as they won't have enough to feed on.

Once you have 1-2 cups of grains, split them into more of jars, and grow them until you need to divide them again. You can keep your cultures going, and either give away some as they start to outrun your fermenting space, or the amount you can eat while keeping some to grow more.

### **Modifications I've Made That Work Well For Me And Others:**

To start your cultures, put a 2-4 tablespoons of grains in the quart jars. Make the sugar/water solution according to the recipe above, and fill the jars to  $\frac{3}{4}$  to almost full (leaving  $\frac{1}{2}$  inch or so of space).

Put the lids on loose: enough gas can build up to cause a bottle with a tightened lid to explode. That being said, I use 1 gallon glass cookie jar-type canisters with a set-on lid, 1 gallon mayonnaise-type jars with screw-on lids, and  $\frac{1}{2}$ -1 gallon glass jars with rubber gasket locking latches on them. I have never had a jar explode or crack under the pressure during the 4-6 days I ferment the cultures. That being said, conditions may vary depending on the inherent strength of the fermentation vessel, temperature, etc., so it won't hurt to loosen the lid every couple of days if it isn't already naturally venting.

Ferment for one to five days. Taste it after day 2 or 3 days and every day thereafter until you like the way it tastes. If it is still too sweet, let it go another day and check it. After a while, you will know how fast (or slow) your cultures 'cook' and can plan ahead to harvest every X days.

Keep the jars at about 72 degrees or warmer. Warmer temperatures speed the fermentation time, so the time it takes during the winter to ferment the water to your taste may be longer than it is during the warmer summer months. If the place where you put your cultures is too cold, they won't grow, and will eventually go bad. (That being said, you can store leftover grains in the refrigerator and eat them over the course of the following week, and revive them by placing them in fresh solution if you need to make more kefir or give away a starter to someone.)

Don't crowd the grains. They need some room to grow and let the gas percolate upwards, and they need enough sugar and minerals to grow. Too many grains in one jar will slow or stop the process as they won't have enough to feed on.

Once you have 1-2 cups of grains, split them into more of jars, and grow them until you need to divide them again. You can keep your cultures going, and either give away some as they start to outrun your fermenting space, or the amount you can eat while keeping some to grow more.

## **HARVESTING**

Remove the fruit and discard (eat or compost).

After scooping out the fruit, I pour the kefir water through a strainer into my collection pitcher. Once I fill the pitcher, I pour it into my storage container, and start pouring off the next jar to be harvested.

Once the strainer is comfortably full (my 1 gallon jars have about 4-5 cups of grains at harvest time, grown from the 2-3 cups of grains I put in when making the fresh batch), I rinse the grains off and place them in a collection bowl. I do all the pouring off and grains rinsing first, adding the grains from all the jars together into the collection bowl.

Rinse the water kefir grains with plain water, and start making new batches with them. Scoop the rinsed grains into the cleaned culture jars

Quart jars: 2-4 tablespoons of grains per quart  
Gallon jars: 2-3 cups of grains per gallon

I started growing mine in 1 qt Mason/Ball-type canning jars with the 2-piece metal lids, splitting the 1 qt solution and amount of grains between two jars, making as much solution as needed to supply the number of jars I'm culturing. I started out with 2 jars and when I got up to 12 jars, I bought three 1 gallon canisters to use instead. I suggest starting out with at least two jars, so you have one available for experimenting, and a spare in case something goes horribly wrong.

When you harvest the kefir water, you can pour it into a pitcher or other beverage storage container and place, uncovered, in your refrigerator, where it will continue to ferment slowly. This will give you a nice tasting but flat beverage. If you like fizziness--some zing--to your beverage, put the kefir water into a capped bottle. I've used

recycled plastic and glass 1 gallon juice bottles with screw tops, Mason/Ball jars, and gasket-latch glass canisters.

If you run out of room in your refrigerator, you can store the kefir water in a capped bottle at room temperature (in the 60s) for a week or so, just so long as there are no stray grains in the bottle. I keep my newly harvested kefir water on the counter, putting any of the remaining kefir from the previous harvest into the fridge.

The longer you store it capped--either at room temperature or in the refrigerator--the fizzier it will get. If you will be keeping more than 5-6 days in the fridge or at room temperature, open and reclose the bottle/jar caps to let out any accumulated gasses. If the room temperature is warmer, do this more often.

When I go out, I pour kefir into a reusable glass bottle. If I have some left in the bottle when I come home, I just leave the capped bottle on the counter because as the kefir continues to ferment. Needless to say, don't shake the bottle before opening.

Adding some kefir water to cold herb tea livens up the tea. You could also add it to fruit or vegetable juice, or squeeze a lemon, lime, tangerine, or orange into a glass of kefir water. Trust me - you'll have plenty of kefir water to play around with to find the ways you like it best.

## **KEEPING THE GROWING CULTURE WARM**

The grains like it warm. I am lucky in that I have an iguana room that gets warmed by both the sun AND the space heater (or two) that I run pretty much 24/7/365 to keep my iguana and wee turtle warm enough all year round.

My friend Karen has a south-facing room that used to house her snakes and iguanas, but now houses overwintering plants and her exercise equipment...and her kefir culture, as the room gets pretty warm during the day, even in winter, from the sun streaming in through the large uncurtained window.

It will be easier to find a nice warm place for your jars during the summer months; during the colder months of the year, you may need to resort to keeping a small room warm with a space heater, or use a heat lamp. Some of the larger compact fluorescents may put out enough heat (like, the 27 watt flat tubes) if you construct some sort of enclosure or tent to keep the heat generated around the bottles/jars while taking care to not start a fire by letting the heat bulb touch. A cardboard or wooden box lined with foil might do the trick, making a sort of indoor slow-cooker 'solar' oven.

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