

## Making Kombucha Jim's Way – 02/19/19

### NEEDED:

- 12 ounce 100% concentrated grape juice
- Square foot piece of thin cloth
- 1 cup plain crystal sugar
- Toothpick (provide air vent space for funnel)
- Wooden spoon
- Rubber band
- Measuring cups – ½-cup, 1-cup, 2-cup and a two 4-cup
- 3-cylinder (Liter or quart) kombucha bottles with wire pressure closers \*\*\*
- Pot
- 6 Tea bags – 3 Chinese black and 3 Chinese green (Or 1 Tablespoon of each) \*\*\*
- Reverse osmosis or filtered non-chlorine water
- Funnel
- Strainer
- Scoby kombucha mushroom \*\*\*
- 1 gallon wide-mouth glass jar \*\*\*
- Large soup bowl

### DIRECTIONS:

- Start heating 2+ cups of water and bring to boil (while waiting continue)
- Thaw out a 12 ounce can of 100% grape juice in a bowl of hot water
- Wash out three wire-stoppable kombucha bottles
- Measure out 1 cup of sugar
- Measure out tea – one tablespoon of each type
- When the water is boiling, pour two cups into a 4-cup Pyrex measuring container
- Add the sugar and tea and stir with a wooden spoon until the white sugar has dissolved
- Start a timer for 10 minutes (while waiting continue)
- Pour ½ cup of melted grape juice into each of the cleaned kombucha bottles. Toothpick on the edge of the funnel or separate funnel from bottle with hand.
- Eyeball the bottles – they should have about equal amounts – if not, try to adjust so they are equal
- Remove the kombucha mushroom from gallon jar and flip (bottom now on top) into a large bowl. There will probably be a color difference of the new top versus the bottom.
- Pour through a strainer 3 cups of the kombucha liquid into a 4-cup measuring Pyrex – we will use it to start the new batch
- Pour through a strainer enough kombucha solution to fill one of the liter bottles to the bottom (just before it goes vertical) of the neck. Optional use of toothpick with the funnel might be helpful to avoid an air block.
- The air gap should not exceed the length of your index finger from the top of the lip to the fluid level. If you need to add more liquid, use any remaining kombucha solution first and then use additional water.
- Once all the bottles are filled, cap each bottle and invert it four times back and forth to mix the solutions.
- Repeat filling for other bottles.
- After tea timer expires, pour tea through a strainer into a 2-cup container – toss excessive fluid and tea leaves
- Wash out the gallon jar – if soap used, insure washed thoroughly with non-chlorine water and dry
- Pour the tea into the gallon jar
- Add a few ounces of water to the 2-cup tea container, swirl and then pour into gallon jar to wash it out tea container
- Fill gallon jar to about 2/3 point and swirl with wooden spoon to mix as well as to cool hot tea
- Pour the saved 3 cups of kombucha liquid into the gallon jar
- Add a few ounces of water to 3+ cup container, swirl and pour into gallon jar
- Fill jar to the jar's neck and swirl with wooden spoon

- Noting which mushroom side is now facing up then wash off the crud from its sides and top. If you don't see anything you would call crud, you don't have any – usually dark brown.
- If the mushroom is thick (more than 1 inch), divide in half. You can save the other part for someone else wanting to start making it, or dispose it.
- Place the mushroom so the top is the same as was in a large bowl – you already flipped it.
- Cover the gallon jar with a thin cloth and use a rubber band to secure its perimeter
- Store the liter bottles for at 2-7 days before putting in the fridge.

#### WHY?

- Kombucha solution is impacted by contact with metal utensils – avoid metal as much as possible. My strainer is the only metal I use. Kombucha absorbs metallic toxins.
- Use round kombucha bottles – rectangular ones cannot handle the pressure
- Do not wait for the boiling to start, continue with some of the other steps if you can
- Do not wait for the ten-minute tea brewing time, continue with some of the other steps until tea is required
- Some 100% grape juice I use only comes in 11 ounce containers. Go with it. But do not use grape cocktail or citrus juices.
- Avoid exposing kombucha mushroom or base liquid to high temperatures – kills the active bacteria.
- Use reverse osmosis, distilled or boiled (that has cooled) water- tap water will have chlorine that will kill kombucha
- Chill/refrigerate the bottle before opening the first time, otherwise the sudden decompression will force a large amount of the kombucha out of the bottle.
- The larger the air space in the bottle, there will be more compressed air and more excitement when the stopper is removed.

#### FIRST TIME

- The first time you will not have any previous kombucha liquid to use, so you will not have the benefit of 3 cups of the previous kombucha liquid. Instead just use the two cups of the sugar-tea, and the remainder water. Each time to run a cycle, your kombucha will get a little better from the first few cycles.
- Best results will come from some kombucha starter

#### VARIATION

- Grape flavor too strong? – follow same general instructions but use four kombucha bottles. Split the grape concentrate equally among four bottles. May have to cut back on kombucha poured into each liter and use water to fill to curve.

#### MY METHODOLOGY

- I alternate between two one-gallon jugs, making one each weekend.
- I leave all the jugs and gallon bottle at room temperature in a dark space.
- I keep one (next) bottle in the refrigerator. When I start consuming it, another liter takes its place. As a result of this process, each bottle is at room temperature for up to two weeks before moving to the refrigerator.
- When a bottle is at room temperature for several days, it can be consumed. But the longer it is at room temperature, the more sparkling it will be. It is not unusually for the first glass pour to have double the foam as standing liquid when initially drawn.
- Nothing should be washed with antibacterial soaps (which shouldn't be allowed in your home)!

- Mold can sometimes happen in a batch, and of course is a bad thing. Mold will look like fuzzy warts growing on top of your SCOBY, and are usually green, blue, or black (not tan or brown). When you encountered it, you will need to throw away the entire batch and start fresh with a new SCOBY. Do not confuse brown tea slime and yeast strings for mold, these are harmless. Mold will have fuzz.
- SCOBY jar should be placed out of direct light for two weeks.
- The SCOBY needs black tea, but the rest can be oblong, green or all back.
- If you don't have a previous SCOBY starter fluid, you can also use 1 bottle of plan store bought kombucha.
- You can use de-chlorinated water, by boiling it for 5 minutes. De-fluorinating takes special filters and isn't required for the SCOBY to grow.
- Do not use reverse osmosis or distilled water unless properly re-mineralized, the SCOBY needs the minerals. (per Gut book, but I have always use RO water without any problems).
- The sugar is not for you, it's for the bacteria and will be mostly consumed by them.
- To decrease the compressed gas in the second fermentation, burp the bottles daily.
- If someone is sensitive to the alcohol, burping daily can help or use an airlock (let's air out, but not in) on the 3rd ferment.
- If you only have a SCOBY to start with, you can purchase some unflavored kombucha in the store and use that instead. You will need three cups.

#### REFERENCES:

- <https://draxe.com/7-reasons-drink-kombucha-everyday/>
- <http://articulos.mercola.com/sitios/articulos/archivo/2015/08/18/como-hacer-kombucha.aspx>
  - o (will need to translate to English – most browsers will do it for you)
- <https://www.westonaprice.org/?s=kombucha>
- <https://www.kombuchakamp.com>
- "The Science of Kombucha". Hannah Crum, WAP 2015 National Conference. (her web site previous entry)
- The Gut Health Protocol, John G. Herron, pp.420-221.