



**KOMBUCHA BREWING**

## About Teatulia

Teatulia Organics is a Colorado-based, Bangladeshi grown tea company working to create a regenerative and self-sustaining community. Our garden in Teatulia, Bangladesh is focused on supporting women and children within the region through employment and creating and funding schools in the area. For many women, working in the tea gardens and earning their own wages is the first taste of independence they have experienced.

Our mission is to bring you great tasting tea that is better for the land, its people, and the environment. In our 3,000 acre garden, we cultivate our tea using organic and regenerative farming principles. We use exclusively non-chemical fertilizers and pesticides, and even have created a cattle-lending program for the women who work in the garden. Women are given a cow and repay the loan via fertilizer over time. With the proceeds from the cow, women are able to send their daughters to school for the first time and increase their own standard of living.

We specialize in organic farm-to-cup teas. Organic matters in tea because unlike coffee beans or other produce, tea leaves are not washed before being dried and consumed. The first time tea is 'washed' is when it is brewed. All of our teas are 100% organic and come from a region committed to producing a high-quality, incredibly fresh product.

**Find us online.. @TEABARDENVER, @teatulateas  
TeaBarDenver.com, Teatulia.com**



## **Getting to Know Kombucha (kohm-BOO-cha)**

A slightly sour and sweet, bubbly fermented tea. It is believed to have originated in China thousands of years ago. The literal Chinese translation of Kombucha is “red tea bacteria” It is known as the “Tea of Immortality.”

The Kombucha culture or SCOBY (symbiotic culture/colony of bacteria and yeast) ferments sweetened tea and produces healthy byproducts such as vitamins, minerals, healthy acids and enzymes.

Gluconic acid - produced naturally in Kombucha. Normally, this acid is produced in our livers. But additional gluconic acid from drinking Kombucha is a powerful aid to cleanse, detox, and boost our immune system

Kombucha is a “sister ferment” to vinegar. In order to make vinegar, you must first make alcohol. Since we are fermenting in the presence of oxygen, the sugars Kombucha will mostly convert to acetic acid amongst others

## Things That May harm your Kombucha

Be aware of the following:

Chlorine - be sure to use dechlorinated and purified water • sunlight - will sterilize bacteria

Flavorings directly in the first ferment with SCOBY - can disrupt fermentation or harm culture • non-organic tea - may contain fluoride

Soap or detergents - be aware when cleaning vessel (use vinegar!)

Mold - very unlikely due to acidic environment, but may happen if you let your SCOBY dry out; if mold developed, just pull off the formed SCOBY and start again

Fruit flies - use a close knit cloth top or coffee filter to keep them out

## **FAQ**

### **What is Kombucha?**

Kombucha is effervescent fermented tea that people have been making and drinking for thousands of years around the world. Legend has it that it originated in China in 220 BC and spread from there. Kombucha is full of probiotics that help maintain your gut health.

### **What is a SCOBY?**

SCOBY stands for Symbiotic Colony of Bacteria and Yeast. It is the heart of the tea. A healthy SCOBY is the key to a great Kombucha tea. The Kombucha SCOBY is a collection of living microorganisms, and, as with all organisms, their environment can either support their health and proliferation, or it can damage them. The bacteria and yeast that make up a Kombucha SCOBY are sensitive to both excess heat and excess cold. The quality of your Kombucha depends entirely on the health of your SCOBY. When that SCOBY is compromised in the way you care for it, or when that SCOBY is of poor quality because it's been stored improperly, its flimsy or its cultures have been compromised; it will make brewing more difficult, especially for first-time Kombucha brewers.

### **What's the difference between a SCOBY, a mushroom and a mother?**

These all refer to the same thing—the gelatinous blob that ferments your sweetened tea. They can and are used interchangeably, which confuses people. SCOBY stands for symbiotic culture of bacteria and yeast. The SCOBY isn't an actual mushroom and it's sometimes referred to as the mother because of its ability to reproduce more SCOBYS.

### **What is a SCOBY Hotel?**

A SCOBY hotel is a jar with fermented Kombucha tea that hold unused SCOBYS. SCOBYS grow in abundance with every batch and its best practice to keep them in fermented Kombucha tea (also known as starter tea) in a jar together covered with a breathable cloth in an unrefrigerated atmosphere until future use.

## **What is starter tea?**

Starter tea is Kombucha tea that has already gone through the first fermentation process.

## **Is Kombucha that complicated to make?**

Not at all! If you can brew a pot of tea, you can make Kombucha!

## **What do I need to make Kombucha at home?**

All you need is a kettle or pot for boiling water, a wide-mouth vessel for brewing your Kombucha, a breathable cloth to cover the jar, a measuring cup, a spoon, a SCOBY, some starter tea, tea for brewing, sugar, and filtered water. Home brew kits are also available for purchase at Teatulia Tea Bar in Denver, CO.

## **Is Kombucha Gluten Free?**

Yes. Kombucha is gluten free.

## **Is Kombucha Vegan?**

Making Kombucha at home is the best way to ensure it is vegan.

## **Does Kombucha contain alcohol?**

When made correctly, Kombucha has no more alcohol than an average fruit juice. To put it into perspective, most Kombuchas have between .03-.05%, which is less than fresh squeezed orange juice or a ripe banana.

## **Is Kombucha safe to drink?**

Absolutely! Some people are put off by the idea of fermentation because they worry they will mess it up and get sick. Fermentation is actually extremely safe. In fact, it's safer than many other types of food preparation. Bad bacteria cannot survive the acidic environment of fermentation. The good bacteria crowd them out and they die.

## **Some Kombucha taste sweet, is it full of sugar?**

Not at all! In fact, during the fermentation process the SCOBY eats most of the sugar

## **Do I have to add sugar?**

Yes. The sugar in your Kombucha feeds the SCOBY, not you. If you let your Kombucha brew for a couple of weeks (depending on your kitchen environment) the SCOBY will consume all the sugar, leaving you with vinegar. That's also why it's important to taste every day after 5-7 days to choose preferred flavor. I personally prefer my Kombucha on the cusp of sweet and vinegary.

## **Can I use stevia instead?**

No. You must use real sugar to brew your Kombucha. I use organic cane sugar or coconut sugar.

## **How much caffeine does it have?**

Caffeine is essential for brewing Kombucha, yet most of the caffeine is metabolized in the fermentation process. Caffeine levels differ depending on the type of tea used, but what remains is a fraction of what was started with. Eight (8) ounces of Kombucha has the equivalent of about two sips of coffee.

## **Can I brew with decaffeinated tea? How about herbal tea?**

Decaffeinated tea will work. Avoid herbal or fragrant tea infused with oils, such as Earl Grey. Stick with tea from the camellia sinensis plant—black, green, oolong, white or puerh.

## **Does it matter what kind of water I use?**

Yes. Only use filtered water. The chlorine in tap water is harmful to the SCOBY which may result in a damaged SCOBY and an unsuccessful fermentation

## **Should I rinse the SCOBY before putting it in a new batch?**

No. The SCOBY should never be rinsed. You'll rinse away some of the microbes that are responsible for helping your sweet tea to transform into Kombucha, so, as a best practice, move your SCOBY directly from one batch of Kombucha to the next, with minimal handling and it'll do just fine. However, if you drop it, you might consider giving it a rinse with filtered water or disposable starter tea to remove excess debris it may have picked up on the ground.

## **Do I need a SCOBY to make Kombucha?**

You need a SCOBY to make Kombucha but you need Kombucha to make more SCOBYs. SCOBYs can be found online and at The Teatulia Tea Bar in Denver, CO.

## **Do I need starter tea when making a new batch of Kombucha?**

Yes, starter tea is an essential part of the Kombucha brewing process and is just as important as the SCOBY.

## **How do I get my Kombucha to be carbonated?**

Carbonation comes from the second fermentation process by adding fresh fruit and fruit juice for 1-3 days. Be sure to burp the bottles daily to avoid the bottles from exploding.

## **What is the first fermentation process?**

The first fermentation process is when the SCOBY, starter tea, Brewed tea, and sugar are first combined and sit anywhere from 5-14 days. The longer it ferments, the more vinegary it will be. After the first fermentation process is completed the Kombucha is ready for consumption as is or by adding some tea, juice or other flavorings to it.

## **What is the second fermentation process?**

The second fermentation process isn't necessary and is when the tea from the first fermentation process is infused with other flavors such as fresh juice, fruit, or herbs to add more flavor or carbonation to the Kombucha tea. The sugar mixed with the fermented tea creates the fizz. Add flavorings and bottle, set aside for 1-3 days in a dark space like a pantry, burping the bottles to release carbonation.

## **Is the second fermentation process necessary?**

Not at all! The Kombucha is ready to drink immediately after the first fermentation as is or add your favorite tea and sweetener or fruit juice and enjoy!

## **Can I keep the Kombucha and SCOBY in the refrigerator while it's fermenting?**

No, Kombucha stops fermenting at temperatures of 40 and under. The tea will still ferment a little, but not much in the fridge. Also, cold temperatures damage the SCOBY and can make it prone to mold.

## **Where's the best place to keep the Kombucha jar while it's fermenting?**

The SCOBY and Kombucha need lots of light and sunlight. Anywhere where the Jar can get light, try to avoid putting it in direct sunlight in the summer.

## **Does Kombucha have to be refrigerated after its fermented?**

Yes. Kombucha slows the fermenting process at temperatures of 40 and under so it needs to be refrigerated until consumption. Though the Kombucha won't spoil if it remains out, if the Kombucha sits out it will continue to ferment and become vinegary. Refrigeration slows down the process.

## **How do I know if it's fermenting properly?**

Whether your SCOBY floats to the top or it sinks to the bottom but a new thin layer forms on the top of your tea, it is fermenting properly. The tea will lighten in color over several days and will see some bubbling also. Finally, you can taste it. A developing vinegary flavor indicates all is well.

## **What is that growing on top of my tea?**

Congratulations! That thin, cloudy layer forming on top of your tea is a SCOBY baby.

## **I see brown strings and blobs under my SCOBY. Is this mold?**

No. Mold needs air to form. It will develop on top of the tea or on top of the SCOBY and will look like, well, mold—black, white, green, furry. The brown blobs and strings are yeast. You want these in your Kombucha.

## **I see black, white or green furry blobs on my SCOBY or the top of my tea. Is this mold?**

Yes. Fortunately I have never had a mold problem but every time I peer into my tea, I brace myself for this horror. If you find mold, you must toss the entire batch of tea and your SCOBY and start over.

## **How do I know when my Kombucha is ready?**

As with other fermented foods, your Kombucha is ready when you like the taste. Generally, I taste mine on day five (although in the summer heat, it can ferment in as few as three days! I need a rest!). If you like the taste, you can either drink it all up or bottle it.

# The Brewing Process

## How to make Kombucha

Use wide-mouth glass jar for brewing Kombucha. Unlike some other ferments (such as mead), you want this one to come into contact with as much air as possible in order to attract acetic acid bacteria. Covering the jar with a piece of breathable fabric while the Kombucha ferments is best so that air is coming into the jar, but nothing is able to fall into the tea such as dust, dirt, or bugs.

There are up to two fermentation processes. For your initial fermentation, you need tea and sugar. (If you want to add flavoring, you do this during the secondary fermentation.) Black, green, rooibos, oolong or white tea work great. Don't use anything scented with oils, like Earl Grey. The oils may cause damage to the SCOBY resulting in unsuccessful fermentation.

You cannot make Kombucha without sugar—the sugar fuels the fermentation and very little sugar remains in a finished batch. In fact, if you let yours ferment for several weeks, the SCOBY will consume all the sugar and transform your ferment into vinegar.

During the first fermentation process do not use stevia as a sweetener. Use real sugar. Other sweeteners such as honey, agave, maple syrup, barley malt, fruit juice can damage the SCOBY.

If you do any experimentation, don't use your entire SCOBY. Test with a batch you don't care about losing.

## What you'll need

- SCOBY
- 1 cup of starter liquid aka starter tea (unflavored Kombucha from a previous batch)
- 1 gallon glass jar vessel
- 1 breathable cloth, dish towel, or coffee filter
- 1 large rubber band
- 6-7 Teatulia tea bags or 4-5 tablespoons of loose leaf organic Teatulia Green & Teatulia Black Tea (2-3 tbsp each)
- Tea bags to hold loose leaf tea
- 3 quarts purified water (no chlorine aka tap water)
- 1 cup of organic sugar (no Stevia or xylitol)
- 1 Pot for boiling water
- 1 spoon to stir

# The Basic Method

## Follow these five basic steps to brew Kombucha:

1. Brew sweetened tea
2. Allow tea to cool
3. Add starter tea to sweetened tea.
4. Add the SCOBY
5. Store
6. Wait
7. Optional second fermentation

### 1. Brew tea and sweeten

Brew 4 cups of very strong, concentrated Teatulia Organic tea using filtered spring water. Heat the 4 cups of purified water in a pot. Just as the water starts to boil, take off heat and let cool 1-2 minutes. Add tea and let steep for 7-10 minutes. Remove tea bags and stir in 1 cup sugar until dissolved. You may want more or less sugar in your next batch, depending on your taste preference. It looks like a shocking amount of sugar, but the SCOBY will consume most of it, not you.

**Note\*** An alternative method would be to use a kettle instead of boiling water via stove top.

### 2. Allow tea to cool

After the sugar has dissolved, pour concentrated sweetened tea into the glass jar and add the remainder of the cool filtered spring water into the jar with the tea. Wait until the tea is at least at room temperature. You cannot add the SCOBY until your tea has cooled. Hot water may damage the SCOBY. Brewing concentrated tea and then cooling it with water takes less time than waiting for a full four cups of hot tea to cool down.

**Note\*** Chlorine may also adversely affect your SCOBY. It's best to use filtered spring water. An alternative method is to prepare tap water the day before making Kombucha by pouring tap water into a glass vessel and leave open to the air to dissipate the chlorine.

### **3. Add starter tea to sweetened tea.**

After the tea has reached room-temperature, add 1-2 cups of starter tea to the jar

### **4. Add the SCOBY**

With clean hands, gently drop the SCOBY into your jar with the brewed tea and starter tea and cover the vessel with a cloth, dish towel, or coffee filter that allows air to circulate. The SCOBY should float to the surface, but it's ok if it doesn't. Cover container with tightly woven cloth, dish towel, or coffee filter and rubber band.

### **5. Store**

Place the container in a warm (75-85 degrees) room, in a ventilated area out of direct sunlight for 7-21 days. (The longer it sits, the stronger the vinegar taste, and it may or may not get fizzy. Taste it through a straw after a week to test.) The SCOBY may rise to the top or sink to the bottom; both are fine, since the new culture will always form at the top.

### **6. Wait**

The first time I made Kombucha, my SCOBY sank to the bottom and there it remained. I had put off making my Kombucha for at least a week after I received it in the mail. Initially, no transformation took place in my brew and I worried that perhaps I had done something wrong. However, after about a week, a new film formed on the surface of my tea! Weak yet alive, SCOBY slowly fermented my tea over a period of a few weeks. Today, my active, lively, fertile SCOBY constantly makes baby SCOBS and my Kombucha ferments quickly (about a week).

Set your Kombucha aside to brew in a warm spot where the air circulates. It does well with a temperature of between 75 and 85°F. As it brews, it will lighten in color. Taste it after five days or so. If you like the taste, you can drink it now at room temperature, move it to the refrigerator (remove SCOBY and a few cups of starter tea before moving to fridge) for later or you can bottle it for a secondary fermentation and then chill it. Either way, set some aside to brew the next batch and keep the cycle going.

## Optional Second Fermentation

With clean hands, remove the SCOBY from the jar. Place it in a clean container and pour 2 cups of liquid from the top of the brew over it. This will serve as your starter liquid and SCOBY for the next batch. (Note: Never refrigerate the SCOBY and starter.)

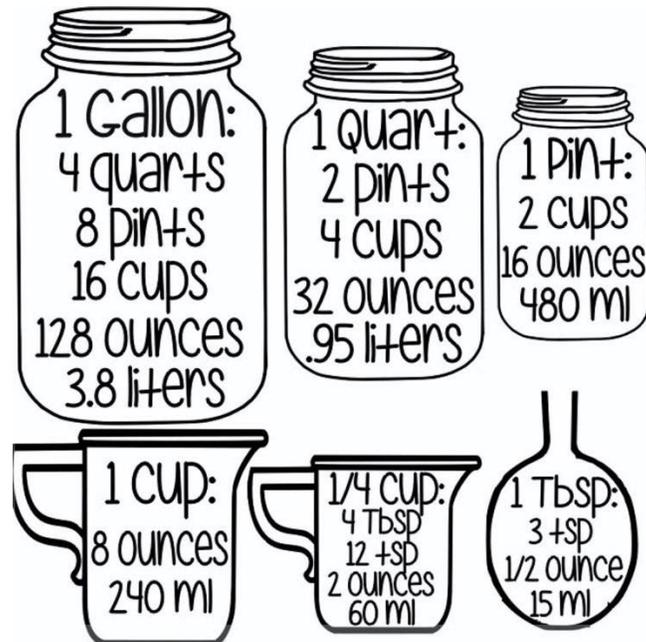
To store your Kombucha, use clean bottles with tight-fitting lids. Avoid metal lids that may corrode. Use a strainer to separate the liquid from any SCOBY particles and then pour liquid into the bottles. If flavoring, place fruit, juice (to taste), flowers or herbs into bottled Kombucha. Set aside for 1-3 days, burping the bottles to release carbonation. Move bottles to the fridge as they reach the desired flavor.

Bottling your Kombucha will increase the carbonation. At this point, you may flavor it if desired. Use 80 to 90 percent Kombucha to 10 to 20 percent fruit or vegetable juice, OR fresh, frozen or dried fruit. I usually flavor mine with—this is per 16-ounce bottle—a few pieces of candied ginger, a tablespoon of fresh pressed lemon juice or chopped fresh lemon. Here are more ideas for flavoring your booch. Teas work great as flavoring like Teatulia's Ginger Spice Tea.

For the secondary fermentation, I use bottles with a rubber gasket and clamp. Fill them, seal them and store them in a cupboard or cardboard box for a couple of days to carbonate before transferring to the fridge where fermentation and carbonation will slow down. Depending on how much sugar remains in your Kombucha, the secondary fermentation may be very active. BE CAREFUL! Due to pressure from CO<sub>2</sub>, a byproduct of fermentation, glass bottles can and do explode if you let them ferment too long. Burp your bottles every couple of days (i.e., open them slightly) to release built-up CO<sub>2</sub>. If you store them in a cupboard or box, you'll contain a possible mess—and glass shards.

**Note\*** Alternate method: Kombucha is ready to drink once the first fermentation is completed. Adding teas and flavorings to booch then enjoying it is also common.

# Measurement Conversion Guide



## Tea Blends

### First Fermentation Blends

- o 2 tbsp Black, 2 tbsp Green Tea
- o 1 tbsp Teatulia Black, 1 tbsp Teatulia Green, 1 tbsp Teatulia White, 1 Teatulia Rooibos, 1 Yerba Mate

### Second Fermentation Tea Blends

- o 3 parts fermented tea, 1 part pineapple juice, jalapeno slices
- o 3 parts fermented tea, 1 part fresh strawberries and mango juice
- o 3 parts fermented tea, 1 part fresh mint, honey