



SCOBY Guide

Brewing Kombucha has never been easier.

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Kombucha 101

What is Kombucha?

Kombucha is a fermented tea drink that relies on the power of SCOBY to break down sugars and produce a sour, refreshing, microbe filled drink.

What is a SCOBY?

SCOBY stands for Symbiotic Culture of Bacteria and Yeast. The yeast and bacteria work together to breakdown sugar and produce acetic acid that gives Kombucha its distinct sour taste.

What is the rubbery substance that grows on top of the liquid?

When the Kombucha bacteria grow they produce a biofilm made of cellulose that floats to the top of the liquid, called the pellicle. It is common practice amongst Kombucha makers to call this the SCOBY. However, many of the important bacteria and yeast are found in the kombucha liquid. In this guide we will refer to the SCOBY liquid as Starter liquid and the pellicle as the Solid SCOBY. It is important to note that you cannot make Kombucha without the starter liquid but a solid SCOBY is optional!

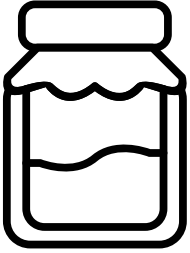


Example of a Solid SCOBY or otherwise known as a pellicle

What is the Escarpment Labs SCOBY for Kombucha?

The Escarpment Labs Kombucha starter is a microbe rich liquid containing all the bacteria and yeast essential for making an excellent Kombucha in only 2 week.

Before You Begin

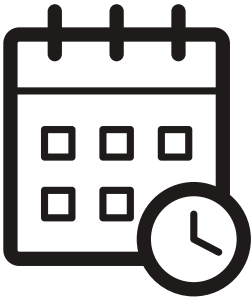


What is the goal?

You will produce a finished Kombucha and start a SCOBY Hotel that can house any solid SCOBY produced during the process.

How hard is it to make?

Similar to sourdough bread making, Kombucha relies on time and microbes to do all the heavy lifting.



How far ahead do I have to plan?

You can start the Kombucha two weeks before you plan on drinking. This gives you plenty of time to finish both the first and second fermentation.



What do I need?

- One pouch of Escarpment Laboratories SCOBY for Kombucha
- 1 2L glass jar
- 1 L of water
- 2 tea bags
- 60g of sugar
- Sealable bottles
- Fruit juice, herbs for flavouring
- Coffee filter and/or cheese cloth

Recipe: First Fermentation

What is the first fermentation?

Kombucha recipes involve two fermentations. In the first fermentation, SCOBY breaks down sugar in an oxygen rich environment and produces acetic acid and cellulose. Acetic acid gives the Kombucha a sour and refreshing flavour while the cellulose forms the pellicle. The key for a good first ferment is to inoculate your sweet tea with 10% microbe rich starter liquid SCOBY.

First Fermentation Recipe

Ingredients

- 60 g/L **Sugar**
- 1000 mL **Water (tap water boiled or filtered)**
- 2 tea bags
- OR 6g/L **Tea (bagged or loose leaf)**
- *See next page for teas best suited*
- 100 mL **Escarpment Labs Kombucha Starter**
- *Make sure glass jar is at room temperature or warmer to avoid cracking*



Steps

1. Boil tap water for 15 minutes or bring filtered water to a boil
2. Turn off heat, Steep tea for 5-10 minutes, remove tea bags
3. Stir in sugar to dissolve
4. Transfer sweet tea to a 2L mason jar (if using smaller jars, half recipe. You don't not want to fill the mason to the top)
5. Cover the jar with some kind of breathable fabric (ex, coffee filter, tea towel)
6. Allow sweet tea to cool. You can put it in the fridge

Recipe: First Fermentation

7. When tea is cooled, add the entire contents of the Escarpment Labs Kombucha starter (for 1L or half for 500mL) . The pH of the tea should drop between 3.5 - 4.5
8. Allow fermentation to go for 1 week at room temperature, covered with cheese cloth or coffee filter to allow for it to breathe
9. After 1 week proceed to a second fermentation to add flavour or refrigerate and drink!

What kinds of tea to use?

Kombucha is traditionally made with caffeinated teas such as black or green tea. Interestingly, most of the caffeine from the teas is used up during the fermentation. However, brewers are not limited to caffeinated teas. Herbal teas also work well for kombucha fermentations. When using herbal teas, you want to look for a tea that is not flavoured with oils or synthetics, as these will kill your bacteria, ruining your ferment.

How can you tell when the first fermentation is done?

We've optimized our Kombucha starters to deliver a finished Kombucha after 1 week of fermentation. You may also check the pH to monitor the fermentation. You should aim for a pH between 3 - 3.5. The higher the finishing pH, the sweeter the Kombucha will be.

How to deal with a solid SCOBY formation during the first fermentation?

Using the Escarpment Labs Kombucha starter you should see pellicles forming in your fermentation after 1 week. You can remove it and proceed to the second fermentation. We recommend saving some of your first fermentation liquid for a SCOBY hotel. See below for information on SCOBY hotels.

Recipe: Second Fermentation

What is the second fermentation?

During the second fermentation you can add flavouring and carbonation to your kombucha. This fermentation takes place in sealable air tight bottles, which allow CO₂ to build up and create carbonation. We recommend thick walled swing top bottles for this. Now is the time to get creative! Juice your favourite fruits or steep herbs to create a refreshing, flavourful beverage. Below we've included a recipe for creating a simple yet delicious fruit juice kombucha!

Second Fermentation Recipe

Ingredients

Finished first fermentation (solid SCOBY removed)

50-100 mL	Juice of your choice
1 tsp	Sugar (if using unsweetened fruit juice)
2	Airtight bottles (thick-walled, swing-top jars)

Steps

1. Add juice of choice to your airtight container. If you use sugar free juice, add additional sugar
2. Fill container up the rest of the way with your first fermentation liquid
3. Cap the bottle & wait 3-4 days



Recipe: Second Fermentation

Why do you need to add more sugar?

The sugar is essential for adding carbonation to the Kombucha. As the yeast and bacteria consume the sugar and produce carbon dioxide.

How can you tell when the second fermentation is done?

The second fermentation is finished when you have a nice carbonation to your drink. This will take between 5-7 days depending on the temperature of your fermentation (ideally kept at room temperature, but can be kept at 30°C for faster fermentation).



SCOBY Care

What is a solid SCOBY vs Liquid SCOBY?

The Escarpment Labs Kombucha starter is a liquid SCOBY. If you are interested in making a solid SCOBY from scratch it is very easy to do with the starter! After the first week of fermentation you will likely see a small baby SCOBY starting to form in your jar. You can grow this into a mature SCOBY by simply allowing your ferment to go longer.



How can you tell when the SCOBY is ready for use in a fermentation?

If you want to use a Solid SCOBY in for your Kombucha, you want to make sure it is at least a ¼ inch thick.



Benefits of a solid SCOBY

Adding a solid SCOBY to your first fermentation provides a protective layer between your fermentation and the outside world. A solid SCOBY is also a good indicator of fermentation health.

SCOBY Care

Maintain your SCOBY in a SCOBY hotel

Solid SCOBY maintenance is very easy. Between Kombucha propagations you can keep your solid SCOBY in a SCOBY hotel!



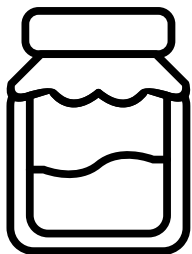
SCOBY Hotel Recipe

1. Make 200mL of sweet tea following the same instructions as the first fermentation
2. Allow tea to cool
3. Add 200ml of your first fermentation liquid to your SCOBY hotel jar
4. Add your SCOBY
5. You can leave the SCOBY in the hotel for weeks

When the SCOBY hotel starts to become very cloudy, you can replace the liquid with fresh tea. It is really important to save some of this initial liquid for the new hotel. You can keep many SCOBYs in one hotel!

Frequently Asked Questions

Why do you add liquid from previous fermentation?



We do this to bring the fresh tea down to the ideal pH for bacteria and yeast, while also preventing mold from growing.

My Kombucha is too acidic to drink.

If your Kombucha becomes too acidic you can tone back the sourness during the second fermentation. For example, if you are using fruit juice to flavour your kombucha, you can add extra and this will help to bring up the pH, reducing the sour taste.



How do I scale up my Kombucha brew?

If you want to make more than 1 L of Kombucha you will need to scale up the Escarpment Labs Kombucha starter. You always want to inoculate the sweet tea with 10% starter liquid. So if you want to do a 10 L fermentation you need to inoculate with 1 L of starter. You can scale up the 100 mL Escarpment Labs Kombucha starter by following the first fermentation recipe. After 5-7 days the liquid is rich enough in microbes to inoculate a 10 L fermentation. Having enough starter liquid is important for 2 reason; it ensures a quick fermentation and it drops the pH to a safe level (between 4-4.5)



Additional References:

<https://www.kombuchakamp.com/what-is-kombucha>

Kombucha Kamp is chock full of information and guides to supplement your Kombucha journey.

Have any other questions? Contact us at ferment@escarpmentlabs.com!