



## **Kombucha: Non-Alcoholic Fermented Beverage Made at Home**

### Introduction

Making your own beverages at home is tasty, rewarding, and economical, but, for most of us, also requires learning new ingredients and processes. This class is designed to introduce you to my favorite homemade drink: Kombucha. Kombucha is made with unique cultures, also called mothers, “mushrooms”, or SCOBYs (Symbiotic Culture of Bacteria and Yeasts). Brew up tea and sugar, add a SCOBY, wait a few days, and voila! You have homemade kombucha!

Homemade non-alcoholic beverages like Kombucha contain health-promoting cultures and can be consumed in their raw states (unpasteurized), which means they are chock full of digestive enzymes and beneficial probiotic bacteria. My husband and I especially enjoy our homemade fermented drinks in the summer to rehydrate and replenish us on hot days working on the farm.

### Tools Needed

- Large glass bowls (4 quart+), spoons, measuring tools, funnel, ladle (\*Don't use plastic to brew kombucha)
- Optional: glass bottles with tight seals such as wire capped, flip-top beer bottles (available at the Central Street Farmhouse, Bangor, [www.centralstreetfarmhouse.com](http://www.centralstreetfarmhouse.com)), or glass juice jars with metal caps (reused from store bought fruit juices), or reused glass kombucha bottles (GT's are good ones).

### Recipe

#### **Basic Batch of Kombucha (2-3 quarts)**

*3 quarts of water (non-chlorinated, please!)*

*1 cup sugar*

*2 TBSP organic loose black tea or green tea or a combo (or 4 tea bags)*

*1 kombucha culture (called a mushroom)*

*½ cup unflavored raw kombucha liquid*

Bring water to boil in large pot. When at boil, stir in sugar and remove from heat. Add tea and stir. Let steep 5-10 minutes then strain. Let sit until it's cooled down to room temperature (this might take a while). When mixture has cooled, pour liquid into a 4 quart glass bowl, two half gallon glass jars or one gallon-size glass jar. Slip the kombucha culture on top of the liquid (it may or may not float right away) and add the unflavored raw kombucha liquid to the bowl. Make an “X” with masking tape over top of bowl (optional). Then cover with a kitchen towel and sit at room temperature for 7-12 days (or more!) until it reaches desired combination of sweet and sour. Taste it!

*Basic rule:* The longer kombucha brews the more acidic, aka like vinegar, the taste; the warmer the air temperature, the faster the brew. We have a friend who swears by 18 days (which can be quite vinegary), but I usually do between 10 and 12 days at about 65ish degrees.

You can start tasting it whenever you like to see how the flavor changes over time. After a few days the kombucha mushroom will start to form a new layer that is thin and transparent and covers the whole top of the bowl. This is good and normal; the culture is working.

After 7-12 days or whenever you like the taste of your kombucha, you need to remove the culture from the top and place it in a new batch or in a glass jar with lid and some of the unflavored kombucha liquid to store at room temperature for the short term or in the refrigerator for longer term. The remaining liquid is homemade kombucha! It can be stored in a glass container in the fridge and drunk that way unflavored or can be bottled, flavored and aged to develop effervescence.

**DO NOT MAKE OR STORE KOMBUCHA OR KOMBUCHA MUSHROOMS IN PLASTIC OR METALLIC CONTAINERS. THE KOMBUCHA WILL EAT INTO THESE MATERIALS. YOU DO NOT WANT THIS.**

### **Kombucha Bottling and Flavoring (Optional)**

After removing the culture, pour your kombucha into bottles (see *Tools Needed* section above for more specifics), add flavorings, cap the bottles, label bottles with date and flavor, and let stand at room temperature for 2-5 days to meld the flavors and develop fizziness. Below are ideas for flavorings (all for 16 oz. bottles):

- Triple Berry: strawberries, blueberries, blackberries (or raspberries, etc.), all chopped into small pieces
- Ginger Berry: same as above, and add ½ TSP minced ginger
- Apple Strawberry: ½ strawberry and 2-3 small chunks of apple
- Apple Mint: a few fresh minced mint leaves and 4 small chunks of apple
- Pineapple Ginger: ½ TSP minced ginger and 3-4 small chunks of pineapple
- Citrus: 2-3 chunks of lemon and 2 chunks of lime
- Citrus Ginger: same as above, and add ½ TSP minced ginger
- Etc... Etc... Get creative! There are an abundance of fruits, fruit juices, dried fruits, veggies, and herbs that might make really pleasing combinations.

It does not take many pieces to flavor a bottle of kombucha. Letting the bottle stand at room temperature allows the flavor to fill the whole bottle. It's important to cut the fruits and other ingredients into small pieces because in the kombucha liquid they will swell and you will have trouble cleaning your bottle if they're too big.

*A tip to speed up the flavoring process:* I chop up fruit into little pieces that fit into bottles and store them in ziplock bags in the freezer. Whenever I have a batch ready to flavor, I remove the bags and put the pieces into the jars still frozen. This works great and is very fast and easy.

### **Frequently Asked Questions**

- **It sunk to the bottom. Is my kombucha SCOBY dead?**  
If the mother sinks to the bottom, be patient. Chances are that it will eventually rise up to the top. If even one corner is touching the top of the liquid then your mother is viable. A new one will form. If you wait it out for 20-30 days or so and no mother has formed and the SCOBY is still sunk down to the bottom with no corner touching the top, then the SCOBY has probably died. This has never happened to me, though, so I don't think it happens very often.
- **I haven't made kombucha in a while and my SCOBY has been sitting in the fridge or on the counter. Is it still good?**  
When you get a kombucha mother from someone who's been storing it a while, you need to rejuvenate it to get it up to its full fermenting potential. Don't despair! This is not hard to do. Just make a batch of kombucha and put your mother in. And be patient. Just know that this mother will need a little extra time to get going. This could take a month or so. Check the taste and once it is close to what you want, make another batch. And so forth. Making back to back batches will get your SCOBY "in shape" and ready to brew kombucha in more normal times of 7-10 days.
- **Can I use anything other than black tea to make kombucha?**  
Yes, you can! Though, I do not have any experience making kombucha with alternative teas, other people do and I would encourage you to try it! The only caution is that the tea you use must be from the actual *Camellia* family, or true tea, not herbal. The mother has a symbiotic relationship with this species of tea only. So you can try green tea, white tea, roiboos tea, etc. But, not chamomile or mint. Get it?
- **Can I use anything other than white sugar to make kombucha?**  
Yes, you can! Though, I do not have any experience making kombucha with alternative teas, other people do and I would encourage you to try it! For example kombucha made with honey is called Jun Tea. Just remember that kombucha is supposed to ferment the fastest using white sugar, so if you use an alternative like honey or maple syrup you will want to wait longer than normal for the batch to brew. Make sure to taste it as it is fermenting. Also, kombucha fermented with white sugar has the highest content of the desirable and health-giving glucuronic acid.

- **Is there a lot of sugar left in the kombucha after it is fermented?**  
No. The kombucha SCOBY/mother consumes the vast majority of the sugar that you originally added, so there is not a huge concern over the sugar content of the final beverage.
- **I don't like all the caffeine. Can I decaffeinate the tea leaves?**  
Boil water and pour over measured amount of tea leaves for your recipe. Let steep 3 minutes and drain, reserving the tea leaves to steep with your sugar water. This method removes between 40-70% of the caffeine from the tea.
- **Can I do continuous brew with kombucha?**  
Yes, you can! I just don't drink enough kombucha to do it this way, but if you do, it can be an easier way to have kombucha available all the time. I am sure there are many online resources for doing this and one that I've used is: <http://www.westonaprice.org/food-features/continuous-brewing-kombucha>
- **Where can I get a kombucha culture/mother/SCOBY/mushroom?**
  1. From a friend! If you know anyone who makes kombucha ask them for a culture. They're free! Also, we maintain kombucha cultures at our house free for anyone who wants to pick one up. Feel free to give us a call if you would like to obtain one.
  2. From Central Street Farmhouse! [www.centralstreetfarmhouse.com](http://www.centralstreetfarmhouse.com)
  3. Online/Mail Order: [www.happyherbalist.com](http://www.happyherbalist.com), [www.gemcultures.com](http://www.gemcultures.com), <http://users.bestweb.net/~om/~kombu/starts.html>
  4. Make your own! You can also grow your own kombucha culture from unflavored, unpasteurized commercially available kombucha bought from a health food store (like Natural Living Center in Bangor) or from the grocery store. Simply pour kombucha into a wide-mouth glass jar, cover with a lid or cloth, and let stand at room temperature until a new mother forms on the top. This can take weeks but will happen! I've done it many times! ☺
- **Where can I get more information on making kombucha?**  
Book resources below:
  - *Nourishing Traditions* by Sally Fallon, New Trends 2001  
Unique resource with recipes for kombucha and other fermented drinks. Our favorite cookbook!
  - *Wild Fermentation* by Sandor Ellix Katz, Chelsea Green 2003  
Kefir and Kombucha and many more variations. Great resource for all things fermented. Also check out Sandor's website at: [www.wildfermentation.com](http://www.wildfermentation.com) for tips.
  - *The Complete Idiots Guide to Fermenting Foods* by Wardeh Harmon, Alpha 2012  
Really clear and well explained with lots of great recipes for veggies, drinks, dairy, etc. Great for beginners.

## About the Instructor

Since 2007, Mary Margaret Ripley has made over 100 diverse kinds of fermented vegetables and beverages with favorites including fermented curried carrot sticks, fermented kimchi (Korean cabbage pickle), kombucha, and much more. At their organic vegetable farm in Dover-Foxcroft, Mary Margaret and her husband Gene Ripley enjoy her fermented products every day, year round. For more info on Mary Margaret's future classes please visit the website: [www.ripleyorganicfarm.com](http://www.ripleyorganicfarm.com) or email her at [ripleyfarm@gmail.com](mailto:ripleyfarm@gmail.com) to get on the future classes notification list.