

How to Make Gingerbeer

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Basic

For 1L, take one hand of fresh ginger, unpeeled. Break into pieces and pound in a mortar/pestle or otherwise crush. Wash the crushed ginger into a saucepan, cover, and heat to boiling. Simmer 20 minutes, turn the heat off, and allow to cool for several hours. When cool, press in a cloth to get all the juice into a 2L graduated container (Ball jar). Add enough water to bring to 1 L.

Add 50g of gingerbeer plant and 100g of sugar (a 10% solution). You may also add Calcium carbonate and/or cream of tartar, a pinch each. Swirl until dissolved, cover loosely, and allow to rest for a day at room temperature. It's done when there is persistent, sudsy foam on the surface. Decant liquor through a fine stainless cloth sieve into another container. The remainder should go into the sieve. Wash the GBP in the sieve under running water for a minute until only white GBP remain--no debris. You may have to pick out bits of ginger that came through the cloth.

The 1L liquor may now be adjusted for sugar (it needs a fair amount more, say 100g), acidity (I sometimes add 10-30ml lemon or lime juice), or anything else to taste. Pour into a soda siphon or flip-top bottle. I leave the soda siphon out for a second day and then chill a few days.

Wash the clean GBP with water into a storage container. Add enough water to cover the plant thoroughly. Add 1/4 tsp Calcium ascorbate, Calcium carbonate, cream of tartar, or nothing if you have hard water. Refrigerate until needed again.

Advanced

Brewing the best possible gingerbeer means thinking like a SCOBY. Bacteria (*L. hilgardii*) and yeast (several) need to be kept in balance. Too much yeast and you get a thin, dry, sour, alcoholic brew. Too much bacteria and you get a gooey, sweet, starchy brew. In the middle it is, of course, just right. Some variables you can play with:

1. Ginger. The above recipe uses simmered fresh ginger. But dry ginger can be used as well as a powder or in chunks. It does not need to be simmered. Fresh ginger can be used without simmering as well. These produce very different flavors and can be used singly or in combination.
2. Spices. I'll only say here that many spices and dried (un-sulfured) or fresh fruits may be added. I like cinnamon, nutmeg, rose water, and cardamom but this is entirely a matter of taste.
3. Fermentation time. Some people add all the sugar at once, as above and bottle with some additional sugar two days later. Others add small amounts of sugar daily for a week. In a healthy plant, the short fermentation can produce a nice, sweet gingerbeer with a cleaner ginger taste. The longer fermentation can produce a thicker body, somewhat drier, and with a more fermented flavor. In either case the total sugar is similar, and additional sugar may be added at bottling if needed. I also add some spices at bottling (like rose water and lemon) rather than during fermentation.
4. Cream of Tartar. It seems to be used to improve the head and add a mild bitterness to the brew. The Potassium may also be a nutrient for the plant. But it's not clearly necessary.
5. Minerals. I add calcium carbonate because my water is very soft. Read a book about beer brewing water chemistry and the influence on flavor of phosphates, sulfates, chlorides &c. A great resource is bottledwaterweb.com. You may use its water analysis to make your own mineral water as a base for gingerbeer brewing.
6. Protein. I add a pinch of Trader Joe's protein powder now and then to improve the ability of my plant to form polysaccharides. This gives a better head and a more viscous mouth feel I like it. Don't add too much or you'll get gooeyness.
7. Sharing. Different recipes may be used to optimize for gingerbeer flavor or improved plant growth. Do share with others, but my goal is not plant growth, it's high quality gingerbeer.
8. Kids. Gingerbeer is often very low in alcohol (>0.5%) and is a great project for kids. They can learn to brew, but under a microscope gingerbeer is truly fascinating. There are polysaccharide-sheathed bacterial rods, bare bacterial rods, and yeast with budding scars. The bacteria may be motile. Sterile culture, streaking, plating all can be learned in the kitchen with a pressure cooker and a gas stove. Have fun!