

Fermented Drinks & Artisanal Sodas

Fruit Soda

Step 1: Gather ingredients and materials (for one gallon):

- ✓ 1-3 gallon large-mouthed glass vessel (w/ spigot if available) w/ cloth covering
- ✓ 1-2 cups **organic / unsprayed** fruit (berries are ideal)
- ✓ (You can also add in your preferred amount of roots, herbs, flowers, etc.)
- ✓ 1/2 cup raw honey or any other sugar
- ✓ 1 gallon water (spring or de-chlorinated tap)

Step 2: If using tap water, de-chlorinate it by letting it sit a few hours uncovered or boil then cool. Otherwise, the chlorine will inhibit fermentation. Pour the water into glass vessel, warming first if needed to help dissolve sugar or honey. Add sugar / honey and stir to dissolve.

Step 3: Clean and de-stem fresh, ripe fruit and remove any rotting or un-ripe fruit. Add fruit (and additional roots, herbs, flowers, etc. depending on your level of herbal knowledge) to the glass vessel. Place the jars in a warm (60-70 F), corner away from direct sunlight. The top of a refrigerator or cabinet works well.

Step 4: Stir vigorously for 1-3 minutes several times daily to aerate and inhibit mold growth.

Step 5: Within 3-5 days you should see active fizzing and foaming upon stirring. Let sit another 2-3 days and continue to stir a couple of times daily.

Step 6: Taste at any point. Drink it if you like it or strain and bottle for carbonation, and chill.

Bottling: Use plastic water or soda jugs or glass flip-top bottles. A glass jug with a screw-top lid will also work. Pour strained liquid into bottles with a funnel. Add 1/4 teaspoon of sugar and one or two raisins (optional) to each standard-sized single-serving bottle (scale up for larger bottles). Seal tightly and let sit at room temperature for 12-24 hours (**NO MORE!**). **DO NOT** forget about the bottles or leave them longer than **12-24 hours** or you will have potentially dangerous explosions or a geyser when you open the bottle. The bottles will build pressure once they begin carbonating and won't stop until they're opened or refrigerated (which will slow carbonation significantly). A good way to gauge the level of carbonation is to squeeze a plastic bottle (if it's tight it's fully fermented) or watch for raisins to rise to the top. Alternatively, open a bottle (outside or over a sink) a bit early. If it fizzes a bit, you have light carbonation (let it sit another 12 hours for more carbonation). If it pops loudly and gushes you've got hefty carbonation! Variables like how the ingredients interact and temperature (the more warmth the faster the ferment) will make for a different experience every time. If it begins gushing too much, close quickly and slowly re-open, repeating as needed to "vent." Once you're satisfied with the carbonation level, refrigerate and pour into a glass for a refreshing, probiotic beverage.

Troubleshooting: If you stir at least a couple of times a day you shouldn't get mold. If white or green fuzz is growing on the surface, skim it off, toss any moldy fruit and stir. I only recommend tossing a ferment if you see black or bright red mold (or any other bright, strange colors), or if you see mold or slime beneath the surface. You should always achieve fermentation if you follow the above steps. During cool periods, it could take longer than a week but usually doesn't. Add more fruit, honey, a tablespoon of starter (see below) or a bit of bread yeast to speed things up.

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Ginger Bug / Starter & Root Beer

Step 1: Gather ingredients and materials:

- ✓ 1 quart jar or other glass jar or ceramic bowl w/ cloth covering
- ✓ 2 inches organic (non-irradiated) ginger root
- ✓ 1/4 cup cane sugar or raw honey
- ✓ Water

Step 2: Grate or chop one inch of ginger and place in jar or bowl. Blend in about a cup of warmed water and a couple of tablespoons of sugar. Stir well to dissolve.

Step 3: Cover the vessel with a towel or cheesecloth, place it in a warm spot and stir or swirl several times daily. Continue to feed starter every day with a teaspoon of sugar or honey along with some additional water and a few small bits of ginger.

Step 4: When you have light fizzing you have an active starter. Continue to feed with sugar, water and ginger every 2-3 days for an ongoing starter.

Step 5: Use about a half cup per gallon to kick-start fruit soda or any other fermented beverage, including non-alcoholic ginger beer.

To make ginger or any other root "beer":

Step 1: Gather ingredients and materials (for one gallon):

- ✓ Ginger bug
- ✓ Fresh roots (ginger, sassafras, sarsaparilla, dandelion etc.)
- ✓ 1-2 cups sugar
- ✓ 2 lemons (or about a cup of juice)
- ✓ One gallon water
- ✓ Fermentation vessel and bottles

Step 2: Boil 1/2 gallon of water and chill other 1/2 gallon. Grate and add in about four inches (or more if you want a strong ginger flavor) of ginger along with 2-4 inches of additional root.

Step 3: Turn heat to low and allow to simmer for about 1/2 hour. Strain out any bits of root, add sugar, and stir to dissolve.

Step 4: Add lemon juice or slice lemons in half, give them a good squeeze, and drop them in.

Step 5: Add 1/2 gallon of cold water and 1/2 cup (or all if you won't be keeping an ongoing starter) of ginger bug when water is **app. 70 degrees F** or warm to the back of the hand.

Step 6: Transfer everything to an open-mouthed container, cover with a cloth and allow to ferment for 2-3 days, stirring a couple of times a day.

Step 7: Follow above steps for bottling.