

### D ROSE Learn the Art of Healing with Plant Medicine

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# Herbalist's Guide to Fermentation

With Malcolm Saunders

# Roots & Fruits Probiotic Sodas -Utilizing Wild Yeast & Bacteria for Effervescent Herbal Beverages



#### **Roots & Fruits - Wild Yeast Starters**

You can use fresh, frozen or dried fruits & berries as well as fresh roots either whole, in pieces or grated, to create this simple soda. Organic, local or wild-crafted is best for this method as you will be relying on the naturally occurring yeasts present on the skins to culture this type of soda.

**Method:** Choose any fruit or root of your choice (as an example wild berries or fruit scraps such as rosehips, apple skins or pineapple rinds work great). Roughly chop or grate for a quicker ferment, leave any berries whole.

Place in a jar and cover the fruit/root with plenty of water.

Add 1 Tbsp additional sweetener like cane sugar or honey if using less-sweet fruits or scraps like skins and pits with small amount of fruit left on it.

Let this sit on the counter covered with a loose lid or breathable cloth, and stir at least 1-3x's a day.

After 2-3 days (or earlier) this mixture will begin fermenting, evidenced by either bubbles, foam on top or even by taste having slightly soured and become less sweet.



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Place a lid on this or strain and transfer to a flip-top bottle to build up some carbonation by letting it sit out sealed for another day or two, refrigerate and then enjoy!

You can also keep this starter culture going and always have it ready on hand by either continuing to feed it by adding more sugar, berries/fruit scraps and stirring daily or place it in the fridge to slow fermentation until ready to serve.

**Herbal Upgrade**: To this instead of water you can use a base of herbal tea. And/or add herbs into the primary or secondary ferment to extract their properties.

**Notes:** You can use this newly created culture at any time to start another soda: Simply pour some of this 'bug' (primary fermentation culture) through a strainer and use this liquid to create your flavoured sodas. When using all or some of this as your starter you would add at least 60% volume of your now cultured starter to a sweetened tea or fruit juice and then put that into flip-top bottle.

You can make a soda using 100% of your starter bug as long as it's quite active by simply placing it straight into a flip-top bottle to continue to ferment and build up carbonation. Whatever ratio you choose (100% fruit/root bug or with added juice/sweet tea up to 60/40 in favour of the bug), leave this flip-top bottle out at room temperature for 1-3 days until it is fizzy then place in the fridge to cool before enjoying.

### **Lemon Bug**

Save your lemons after you have juiced them! This soda starter is a great way to use up juiced lemon skins and get all the flavour and nutrition from your lemons including the bioflavonoid-rich pith. Method is similar to above but using lemon or any citrus. Must use organic to avoid waxes and sprays.

**Method:** Place 1-2 lemon rinds in a 1L jar - ideally roughly chopped Add 3 Tbsp cane sugar or honey Cover with water Let sit on the counter covered with a loose lid or breathable cloth, and stir at least 1-3x's a day



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Use this as your starter by straining out some liquid (reserve this for next batch) and add this in a ratio of at least 70% bug to 30% of a sweetened herbal tea or fruit juice.

\*\* Turn this into a pure lemon soda by adding 30% fresh lemon juice, water and sugar or honey to taste. Pour this into a flip top bottle and leave this new mixture out at room temperature for 1-3 days until it is fizzy. Place in the fridge to cool before enjoying.

**Lavender Lemonade:** Following the directions for Lemon Soda, simply add 1 TBSP lavender flowers, powder or hydrosol and vanilla extract/powder during the secondary fermentation and allow to sit at room temperature in a flip-top bottle for 1-2 days.

#### **Ginger Bug**

Fresh, organic roots of ginger, galangal and turmeric work best for this recipe.

**Method:** Place 2-3 Tbsp grated fresh ginger or other root in a 500ml mason jar. Add 2-3 Tbsp organic cane sugar and cover with filtered or spring water.

Cover jar with a loose cloth and leave in a warm spot. Stir every day, and every 2nd or 3rd day you can feed the ginger bug with 1 Tbsp grated ginger and 1 tbsp sugar and stir with wood or non-metal utensil. You should notice within 2-5 days (depending on room temperature) that your bug is beginning to ferment as evidenced by small bubbles rising to the surface, indicating your ginger bug is now active and a culture has formed.

Use this as your starter by straining out some liquid (reserve this for next batch) and add this in a ratio of at least 70% bug to 30% of a sweetened tea or fruit juice.

\*\*Turn this into a Ginger Ale soda by adding 30% strong ginger tea (cooled to room temperature!) and more sugar to taste.

Pour this into a flip top bottle and leave this new mixture out at room temperature for 1-3 days until it is fizzy. Place in the fridge to cool before enjoying.



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#### Recipe ideas to try:

#### **Ginger - Turmeric Soda**

Following the same directions as the Ginger Bug Starter but use 1 Tbsp each of fresh grated turmeric root and fresh grated ginger root. Alternatively, you can use a plain ginger bug starter and follow the directions for Ginger Ale, replacing the ginger root with equal parts turmeric root and ginger root.

#### **Ginger Reishi Soda**

Following the directions for Ginger Ale, add reishi slices at the same time when brewing ginger to create a reishi ginger tea. Now you will have reishi ginger tea which makes a fantastic medicinal beverage to ferment. Reishi mushroom is a herb known to have a wide spectrum of health benefits.

#### Ginger Pineapple Soda

Following the directions for Ginger Ale, add 4 oz of dried pineapple pieces along with the ginger and let steep to infuse the flavour and sweetness of pineapple. You can reduce the amount of sugar used in the recipe when adding pineapple and don't have to add lemon.

#### **Further Herbal Variations:**

Use any fresh root in place of ginger in the creation of a 'bug' recipe. This could be echinacea, burdock, valerian, devils club, you name it...



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#### **Raw Honey Water Starter & Soda**

You can use this as a starter for creating a flavoured tea or juice or you can choose to bottle this as is to build up carbonation in a flip-top bottle.

#### Method:

Simply add 2-3 Tbsp raw honey to 500ml of water in a jar and stir daily. After 3-5 days you will notice this will have begun to ferment. You can consume as is; use it as a base to start another soda; or flavour and bottle into its own soda.

If bottling, some easy flavour ideas are adding food grade hydrosols, fruit juices, saffron strands, vanilla extract or herbal tinctures and syrups to a honey water that has started fermenting. Simply drop in your desired flavour and seal in a flip-top bottle, adding a touch more sweetness if desired.

#### **Real Root Beer**

Using a strongly brewed decoction of Light Cellar Root Beer tea blend (simmer 3-4 Tbsp in 500ml filtered water, then cooled to room temperature), combine with plain ginger bug or other fermentation starter in a ratio of 1:3 with the majority in favour of your primary culture. Add maple syrup or sugar to taste as well as a drop of wintergreen essential oil for additional root beer flavour.

Let this ferment at room temp in a sealed flip-top bottle for about 2 days or so, then place in refrigerator to completely chill. When ready be careful to open slowly, and just in case do so over the sink.



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#### More Home-Made Craft Soda flavours to consider and explore:

- Rosemary Lime
- Rosehips & Roses Coriander Orange Jasmine Green Tea & Longan
- Blue Majik Lemonade
- Saffron Hibiscus
- Chaga Kola
- Cherry Chaga Maple Vanilla Kola Elderflower or Elderberry
- Cream Soda (Vanilla)

#### Be Mindful to:

Use only glass or ceramic vessels and/or wooden utensils for fermentation processes as metal or plastics will react or leach during the fermentation process.

Use only clean materials to avoid cross-contamination and to ensure the proliferation of only the desired beneficial bacteria and yeasts.

Always use proper glass flip top bottles in the secondary fermentation.

Always BE CAREFUL WHEN OPENING as pressure may be built up in the bottle due to secondary fermentation.

You can check the progress of the secondary fermentation by carefully checking the pressure of your soda each day.

Always store finished sodas in the fridge.

Sodas are best enjoyed within 1-3 weeks of placing in the fridge.