Ginger Beer Plant Step-by-Step Guide

Welcome to the kefir family! If you haven't already, you can purchase Ginger Beer Plant from our store. You are now part of a world-wide community that has sustained this delicious health-promoting drink over many centuries.

Most fermentations, including ginger beer, do not do particularly well with metal utensils or metal containers which can damage them.

It is recommended to stick with **glass, wood and plastic** when handling and fermenting. **Stainless steel** is considered safe for *short term* contact such as straining or stirring.

View the printable PDF version of this guide.

PREPARATION

**When your package arrives, we recommend putting it directly in your fridge temporarily, until you're ready to feed the plant (preferably the same day, or within 24 hours).*

Utensils needed:

- Quart or larger jar
- Wood or plastic spoon/spatula
- A very fine plastic/nylon or stainless steel strainer
- Another quart-size or larger container to store the finished drink. (a clean pop, juice, vinegar or oil bottle works great, too).
- For these items and other personally recommended products, view our Water Kefir Recommendations page (which has very similar methods and utensils to ginger beer plant care).

Note: Ginger beer plant's size can range from almost mush, to about the size of a puffed pea. You will need a very fine strainer to properly strain it, and not lose the grains through and have them in your drink. Fine stainless steel strainers (such as oxo) or plastic strainers (such as the ones we carry) are about the size you need. We offer a couple choices in our products page, including fine mesh lid strainers.

STEPS

A Note on Instructions: There are alternative ways to make Ginger Beer - and each will give you a different resulting flavor. Below is a good starting recipe. At the end, we will list some variations to try out.

1. The first step is to strain your plant (the grains) and discard any sugar-liquid in the bag. If the GBP had a long transit or omits a strong smell, you can do a light rinse with unchlorined water. Don't worry about making them 'pristine', a quick gentle rinse is sufficient. Note that if you do rinse the grains, it may rinse off some of the slushy protective coating from the plant and may temporarily measure below 2 tablespoons. But don't worry, it will rebuild the coating during the first batch.

CHLORINE: Chlorine can damage the plant, which is sometimes found in high amounts in tap. Please refer to the section above on water under 'Ingredients'.

METAL: If using a metal strainer, stainless steel is considered safe for brief contact. Acids from cultures can interact with and leach metals (though mostly through prolonged contact), which could disrupt or harm the grains.

2. Now, place your rinsed grains in a clean jar that holds at least four cups (a quart) of water to start out with. It doesn't really matter whether it's a skinny or a wide jar, but we have found that the plant does a little bit better in a wide jar simply because the surface has more air exposure and the grains have more room.

3. For this first batch, add 6-8 tablespoons (1/3 - 1/2 cup) sugar from one of the options below:

- All white sugar + ginger juice (use about 4 inches worth of fresh ginger root. This is accomplished by just blending it with some water and straining the juice from the fiber - don't put the fiber in the ferment, it's hard to remove if you do.
- 50% white sugar + 50% of a good mineral rich sugar (wholecane, brown, rapadura, palm, etc) sugar
- 80% white sugar + 20% blackstrap molasses
- Mostly white sugar (roughly 80-90%) with the small remainder a mix of ginger + celtic or himalayan sea salt and just a little bit of molasses
- A Blend of mostly white sugar, a small bit of unrefined sugar (a spoonful), and 1-2 chunks or slices of ginger.

Note on starting out: White sugar & ginger is more of the traditional way to do ginger beer. However, if it has trouble starting out, try adding a little bit of molasses or try using the 2nd option of half white and half mineral rich sugr until it gets stronger. Then switch back to white sugar and ginger if desired.

GINGER: Ginger juice from fresh ginger is the best way to extract all the minerals and nutrients. If you are using just white sugar, then this is the best method. You can experiment with ginger slices, ginger chunks, dried ginger or ginger powder, but it will likely need more mineral support such as mineral rich sugar or molasses. Avoid fresh ground ginger that comes in bottles at the grocery store - it usually has additives that can irritate. Tip: Scalding ginger root (plunging into boiling water for a minute or so) is a good option for avoiding any contaminants found on the skin of the root. Some people do this, however some find it unnecessary. Some people simply run hot water over the root to rinse it, or they peel it. It's up to you. Scalding can change the flavor a bit (makes slightly more mild vs sharp, which some people like).

SUGAR: White cane sugar is the most affordable, and does not overwhelm the ginger or other flavors that you may wish to add later when bottling. We recommend using white cane sugar for at least approx. half of the sugar and, if desired, supplement the rest with a form of less refined sugar such as whole cane sugar, palm (coconut) or blackstrap molasses for additional mineral support. Molasses can be quite strong flavor wise, so try experimenting with other unrefined sugars, ginger and/or salts to perfect your flavor preferances. Dried fruits can work ok too, but is best experimented with later. We have found that the grains do best with access to dense caloric sugar (white) supplemented with a smaller portion of high mineral (less refined) sugars and/or ginger. It is hard to have a ferment do well on white sugar alone, unless your water is very rich, and the ph is right.

HONEY: It's best to hold off experimenting until after you've had the grains for a few weeks in a 'normal' sugar (as listed above). You can try honey but it is cautioned that due to its antibacterial properties (especially raw), and different ratios of sugars (higher amounts of fructose) it may do poorly or temporarily weaken the grains. We highly recommend experimenting, there are SO many sugar and dried fruit options. But, we stress waiting to do so until you have enough extra grains to experiment in a separate jar. Check out our section on sugar types in our Water Kefir FAQ for more sugar ideas and info.

Syrups (such as Maple or Rice) and Sweeteners (such as Stevia): Syrups can do ok but keep in mind that syrups contain quite a bit of water (maple is around 33% water) so you'll want to adjust by using less water, and adding 1/3 more sugar than you normally would. Stevia and other *sugar alcohols* and *artificial sweeteners* (like splenda) will **not** nourish the grains. They cannot metabolize the sugars thus they will fail to ferment and thrive. *Coconut water or fruit juice should also be experimented with later (like suggested under 'honey').*

4. Add 4 cups of spring or mineral or well water. Be sure to allow 1" or so space at the top (don't fill to the brim). Cold, cool or room temperature is best (never above 90 degees, it will kill the grains). Stir with a wooden or plastic utensil until the sugar is mostly dissolved. This will only take a minute or two, as it doesn't have to be perfect. You can dissolve sugar in boiling water ahead of time, as long as it's cool before using. Your ferment will be as light or dark as the sugars put into it, so your ferment may be much lighter than the one pictured (if you use just white and ginger, for example).

*Minerals help your grains to function and properly metabolize sugars. **Filtered** water is low in minerals and can perform poorly. **Distilled and reverse osmosis** water are even worse, and can inhibit the grains from metabolizing the sugars, make for a very poor ferment and can even kill the grains long-term. If filtered water is your only source of water, additional minerals may be necessary (filtered water removes about *94% of the natural calcium* present in water.

Tap water *can* work fine if the chlorine level is low enough. Many people have no issues using it. If you're concerned, letting it sit out (open, no lid) 24 hours allows chlorine to evaporate (as does boiling for 10 minutes or so). Chloramine (another form of chlorine sometimes used to treat water) does not

evaporate though. Tap water is worth experimenting with after you have acclimated your grains to your home for a week or two.

We recommend starting out with spring or mineral water and then testing on back-up grains with your tap or filtered water before using one type exclusively.

5. ***If*** you are adding a lemon wedge *(can be irritating for grains, please read* about lemons under **'optional items'** below), its easier to do so after stirring. Remember, your flavor will change to be lemon-ginger. Some people like this, others prefer to omit it. At this point, you can add a lemon wedge (anywhere from 1/8 of a lemon to a half lemon). If you're unsure what may be on the lemon (wax, chemicals, etc), simply peel the skin off. It's not advisable to squeeze the lemon, but you can do this at the end after you've strained out the grains (when you are ready to bottle and/or drink it), if you prefer a stronger lemon flavor.

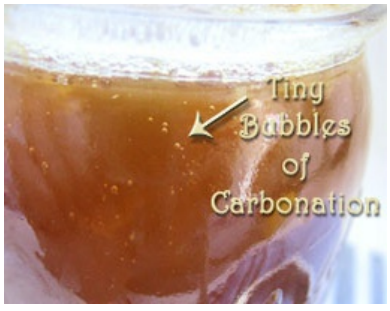
6. Cover the top of the jar with a cloth, paper towel or parchment paper held by elastic. This is so your ginger beer plant can breathe while at the same time protecting it from contamination like dust and fruit flies.

LID: Putting a tight lid *can* cause the jar to explode due to the natural carbonation process taking place. Believe us, this does happen! A loose lid can work ok, but cloth is best. Air locks work just fine too, if you prefer to use those.

7. Time to let them rest and do their thing! Find a place for your grains out of direct sunlight. We have personally not found direct sunlight to be harmful, but it's the common suggestion to avoid it. Store your ferment in the dark or natural light (just not in a beam of sunlight). The counter or a cupboard is just fine. You can shake/stir them once in awhile as they ferment (helps redistribute nutrients). Although sometimes helpful, its not completely necessary and doesn't usually make a huge difference. Check back on them in a few days! Three to seven days is a usual time frame for ginger beer. In the summer they may be done around 3 days, and in the winter they can go longer, 5-7 days. You will learn as you go... it's not critical to get just the right time, so just experiment as you go, finding when it seems about the right sweetness to you. For example, forgetting them for an extra week or so should not cause any harm.

TEMPERATURE: Temperature can greatly affect the speed of fermentation (it can take half as much time during the summer). Experiment and see what tastes right (and digests right) for you. They will not die if they're ready at 24 hours, but you strain at 48, so don't worry too much!

Activity and Bobbing Grains: If you jostle the jar or lightly tap it against the counter you may see some tiny fizz that raises to the surface. You most likely will not witness bubbles without disturbing the jar in some way (your ferment will not look like a bubbling fish tank!). This is a good indication of proper activity. It's sometimes normal to see grains traveling up and down while fermenting, but it's also normal to NOT see any movement. It's not an indication of a poor ferment if they are not moving (unless all other factors of failure to ferment are present). In fact, most of the time, they do *not* bob or travel. When the conditions are just right (you may find in a particular season, with a certain amount of sugar, and certain ingredients) the grains will grow and ferment in such a way that their shape traps carbonation bubbles in their matrix termporarily, which is what lifts them up, and then eventually the gas dissolves and they sink back down again. But it sure is fun to watch, when the phenomenon does occur!:)



INACTIVITY: If your grains are not doing well (ie, no ferment, disintegrating), they most likely need more mineral support. We recommend trying a different recipe (as suggested in step 3) which may be all you need to get them going. Problems usually arise under 2 condtions: too many various unrefined ingredients given to them right away (after arriving at your house, they are slow metabolically and this is too much to process) or if they aren't given enough minerals (such as just white sugar and a lemon). The grains are hardy and will almost always perk up even after several ferments fail - you are not really on a time clock, they're quite patient, so try a different combination and go from there!

8. When the ginger beer is ready, you need to strain them from your fermented beverage they are in. Set a a fine plastic or stainless steel strainer over a jar or bowl and pour

everything in. Pick out any ginger or lemon. You can eat these, discard, or even keep in your bottled ginger beer. If you used lemon, you can now squeeze it into your strained/bottled drink for a stronger lemon flavor if desired.

SURFACE: It's normal to see some grains, foam and occasionally some 'scum' floating near the top (especially when using less refined sugars and/or ginger or dried fruits). It's also normal to see a perfectly clear surface, too. Sometimes this can indicate inactivity though - taste to see if it still tastes like flat, sweet sugar water - this indicates the grains did not convert much of the sugar. A great way to understand your ferment better is to taste everything before the ferment begins, so you know what an unfinished ferment tastes like, and then compare it at the end of the 48 hours - there should be a difference, explained below:

FLAVOR: Ginger beer is milder than kombucha, but stronger than water kefir, it should have a noticeable flavor change - like sweet apple cider vinegar with beer (and ginger if included, etc). Carbonation is usually **very** subtle (if present at all, at the time of straining) but will increase when bottled (more on this below). **Carbonation always rises - and with a cloth lid, most of it is escaping during the ferment.** So when you go to bottle your ferment, put a very tight lid on it, and see if any carbonation develops. If not, adjust by adding a teaspoon of sugar or a little fruit juice when bottling - this should give it a good kick. You may also need to experiment with storing it for a day or two outside the fridge, vs inside the fridge (just keep it in a box or bag outside, in case it explodes! Using swing top bottles helps because these withstand greater amounts of pressure than other bottles or jars.

9. Now its time to bottle your ginger beer and put the grains back into their jar. Measure out 1/8 cup (2 tablespoons) of grains and place them back in your jar (does not need to be washed each time), or a clean jar. In the 'Extra Grains & Storage' section below you'll find ideas for what to do with extra grain growth. Now pour your strained drink into another jar to store. Clean pop, juice, vinegar or oil bottles work great. Glass is the preferred storage material. Plastic and metal tend to leach when in contact with acidic liquids. You can drink it right away or chill it. Ginger beer tastes best (ie, fresh, rounded flavors - in our opinion) within 48 hours of being chilled, and begins to take on a more dry 'adult' beverage flavor after being bottled for a few weeks.

EXPLOSIONS: When storing, try to keep the lid on a tad loose, to prevent explosion. If you're aiming for more carbonation, fill the bottle within 1/4" of the top, and put the lid on tight, but 'burp' it each day (open the lid, then close back up) - this prevents explosions but still allows carbonation to build up.

FIRST FERMENTS: Occasionally, the first batch or two will have an off odor. Although generally safe, you may want to discard the first few batches. Although usually fine upon arrival, its good to let your grains acclimate to your home, water source and sugars and become fully balanced before regular consumption. If it has a strong 'nail polish' odor, wait until they balance. If it persists, rest your grains in clean water in the fridge for a couple of days, changing out the water daily.

FLAVORING: Half the fun of ginger beer is flavoring. When you've got it strained and bottled, you can experiment with many different flavors and techniques. Add in some of your favorite fruit juice, veggie juice, or squeeze in some fresh lemon, lime or orange. You can even add fresh or dried fruit. Raspberries are delicious. A teaspoon of vanilla extract (per 1-2 cups), a stick of cinnamon, some grape juice, or some more fresh slices of ginger are excellent as well.

Sometimes this process is called the 'Secondary Ferment' because it is *without* the grains, where you are adding in more sugar and/or fruit and flavors, and letting it further ferment a day or two. The reason to add more sugar is to aid in carbonation. Fruit juice also works great for adding carbonation (with no need to add extra sugar). You can let it rest at room temperature or in the fridge for this process (just make sure to 'burp' the

Important Note Before Drinking Ginger Beer: Ginger Beer contains very large amounts of good bacteria and yeast as well as being acidic (from the high amounts of healthful lactic acid, ph around 3-5). For a few people's bodies it can be a little bit of a shock. Everybody reacts to it differently, so we always recommend starting out slow to see how your body takes to it. The majority of people do not have any adverse reaction, but if you do, usually it's just a matter of starting out slow and slowing increasing over time. Start with a tablespoon and go from there. If you are sensitive to sugar and tiny amounts of alcohol, it is generally tolerated better on a full, rather than empty stomach, such as after lunch.

NOTE: When people say they are drinking ginger beer, they are referring to the liquid created. However, it is fine

bottles, especially if left out of the fridge. For special bottles like the one above (which don't explode as easily as normal jars and bottles), view our swingtop bottle page.

Visit our new recipe section (water kefir section, but works for both!) for flavoring ideas and turning your ginger beer into tasty smoothies, italian sodas, sparkling juice drinks and even using it as a leavener in bread and pizza!

10. Now simply repeat! If you wish, scroll down to view more options and recipe variations for making ginger beer for your next batch!

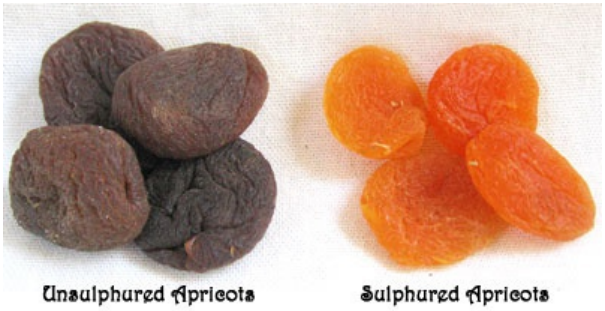
That's it! Congratulations on your first home-made ginger beer! It really is a fool-proof process and the grains are quite resilient, so don't worry too much, people have been making this for centuries! Have fun, experiment and enjoy!

to eat small amounts of the grains themselves, too, which are of course an excellent source of probiotics.

If you need any further help beyond this guide, feel free to email us at any time at yemoos@yahoo.com.

Optional items *(with caveats)* **:** (as shown in *green square* at the top)

Muslin bag: to hold your ginger in during the ferment. This is somewhat convenient for keeping the plant and ginger separate **if** the ginger has been shredded, but it isn't necessary. Keep in mind it can sometimes hinder the grains access to nutrients a bit, too. This functions best for holding tiny dried fruits, herbs, teas (middle item in the pic below) or finely shredded fresh ginger that sticks to grains that you may *eventually* experiment with. Cheese cloth can also work very well, and is more porous. Avoid nylon or other plastic mesh bags - which can leach plastics as they interact with the acids in the ferment.



Dried *unsulphured* fruit: Fruit (although somewhat untraditional for ginger beer) adds to the flavor and nutritional dimension of the beverage. Hold off on experimenting with these until later though. They are especially helpful if you're using only white sugar, as the dried fruit supplies minerals that processed, white sugar lacks. Using dried fruit with unrefined (brown) sugar can be 'overkill' and can lead to yeasty or even slimy ferments (too much yeast and/or minerals is the likely culprit). Use small amounts to find the threshhold of tolerance. If it seems too much, simply cut back or omit next time, the grains will re-balance. Avoid sulphured fruit (a preservative added to most dried fruit that can suppress or highly irritate the grains). A handful of dried fruit per quart is sufficient (see pic below, including note on 'amount of dried fruit'. Cutting up the dried fruit can help release more nutrients and flavor.

Lemon: This is truly optional, and only works for some people (depending on local water mineral composition and other ingredients used). Many times ***it can be irritating****** (but not detrimental short term) for the grains. If you decide to experiment, use a small wedge, and simply place it in the ferment (don't squeeze the juice in). Organic is best, washed well, if non-organic or unsure of cleanliness, just peel the rind off (which contains waxes, chemicals etc). Some people like the flavor this lends, some don't. Sometimes it can help with the ph of the ferment as well, depending on your water and other ingredients you're using.

*If you like the flavor, but your grains are irritated by it (grow less, crumble a bit, acquire a dusty coating) simply stop using it in the ferment (the grains will recover), and add a little slice or squeeze into your **strained, bottled drink to flavor it.** (as pictured to right)

Amount of Dried Fruit: You can visually get an idea here of about how much a 'handful' is. You can get by with less than this, too. The fruits pictured work well with ginger beer, either by helping nourish the grains, lending a great flavor, and in many cases, both.

NOTE: We have found some fruits like dried strawberries just don't do much for the flavor OR for the grains. Raspberries on the other hand, work very well for flavor (but don't help the grains much...and dye them temporarily). Banana can be ok, but is sometimes a bit 'oily' and doesn't lend as much flavor as you'd think. Keep in mind some of these fruit will dye your grains a bit! But the dye is temporary - it will fade when you stop using the 'culprit' ingredient. Usually pink and red fruits are the ones to dye.

A Note on Fresh Fruit: Fresh fruit is tricky and can irritate the grains (enzymes, antibacterial properties, weak organic acids). Most people find this works exceptionally well ***after*** fermenting. Simply add fresh fruit, or fresh fruit juice of your choice to your strained, bottled ginger beer to flavor it. You can ***temporarily*** ferment juices such as grape or apple, but over time it can be irritating to the grains. Store bought juice is pasteurized and contains preservatives, both of which really reduce the effectiveness of the ferment. We encourage you to experiment with fresh juice (freshly squeezed 'raw' apple cider or blend up some grapes in a blender to make your own grape juice!

Additional Thoughts and Tips

Concerning the next batch: It is just fine to start with the same jar (can be reused for several weeks if desired), or a clean jar and all new ingredients (as described in the steps above). Some people like to carry over a little of the ginger beer liquid from the last batch (1/4 cup per quart for example) to the new batch. While this is not necessary, it may sometimes help with the ferment. Try with and without to determine in your situation if it has any helpful results.

Concerning 'Secondary Ferments': To avoid harming the grains, a majority of flavoring is done in a 'secondary ferment'. This is after the grains have been taken out and you are bottling. You can add whatever flavors you want at this point, without any worries as to harming your grains. Remember that adding fruit juice or sugar only temporarily increases the sugar content and after leaving it for a day or two a portion of the juice or sugar will be converted (even without the grains, ginger beer is full of probiotics able to metabolize sugars. Be sure to keep the lid on a bit loose to avoid explosion. you want good carbonation, invest in a swing top bottle (withstands pressure, so you're less likely to be dealing with an explosion!). You can also just stick it in the fridge, the flavor will slowly infuse the liquid, even when cold. There are limitless combinations you can try with this! Included at the end o this guide are just some of the delicious combinations you can try!

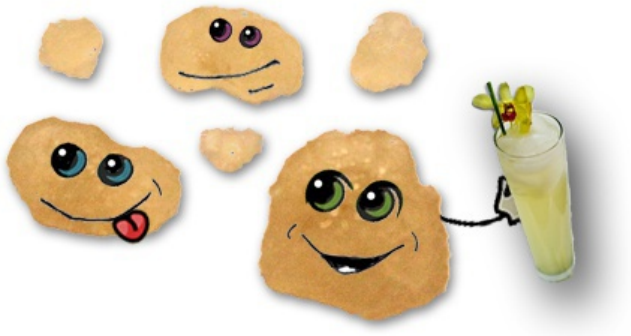
Note on Storage Life: The finished ginger beer will continue to ferment even without the plant. Storing it in the fridge will dramatically slow down the process though, and allow you to enjoy it for about a week. It will still be drinkable far after this (it doesn't 'spoil') but it will become more acidic and/or increase in alcohol and change flavor through time. Be careful whenever storing in an air-tight bottle, especially glass, because the pressure can build up and explode the bottle (even sometimes in the fridge). You can 'burp' it by opening the lid to release the pressure (once a day), then sealing it again Or use specially designed bottles, such as swingtop bottles.

Alternate Fermenting Recipes

Variation 1:

180gm (a little under 1 cup) sugar
1L (4 cups) water
4 tsp lemon juice
4 tsp lime juice
2 tsp ginger powder
1/2 tsp cream of tartar
Ginger Beer Plant (about 3tbsp)

Mix all and let ferment 3-7 days, checking for desired taste, then strain, bottle and repeat.



Variation 2:

1 quart water
1/4 cup GBP
2 Tbsp. of sugar

1/2 lemon (peeled, unsqueezed - allow to float)
4-5 slices of peeled fresh ginger
Dried fruit, such as apple or fig
OR even a fresh pineapple core

Check for flavor in about 2-3 days, and then add another 2 Tbsp of sugar if bubbling has stopped (active fermentation). Then either airlock it for a few days or let it ferment in the sun for another few days; go by the taste.

Variation 3:

1 quart water
2 TBS GBP
1/4 cup sugar first day
Some dried fruit and a tablespoon rapadura
Add in another 1 TBS sugar each day, for 4 more days.

Variation 4:

Based off a recipe from Raj B Apte:

4 cups water
Handful of fresh ginger, unpeeled, pounded/crushed.
Simmer on low heat 20 minutes in a saucepan , turn the heat off, and allow to cool for several hours. When cool, place in a cloth and squeeze all the juice you can into your jar.
50g of ginger beer plant (about 1/4 cup)
100g of sugar (a 10% solution - about 1/2 cup)
You may also add calcium carbonate and/or cream of tartar, a pinch each, if you don't have hard water.
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 through a fine sieve into another container.
You may have to pick out bits of ginger amidst the GBP.
The drink may now be adjusted for sugar (it needs a fair amount more, say 100g - another 1/2 cup), for more tang you can add 10-30 ml lemon or lime juice (2 + teaspoons) or anything else to taste.
Pour into a soda keg or flip top bottle.
Leave it out for a second day and then chill for a few days.

Variation 5:

Based of a traditional UK recipe and **one of our personal favorites**:

8 cups water
1 to 1.5 cups sugar
1 teaspoon cream of tartar
1 tablespoon ginger beer plant
fresh ginger root - amount: about the length of your palm (approximate amounts are fine)- Peeling is not necessary.

Rinse ginger under very hot water. Blend the ginger root in a blender with a cup or two of water until very well blended and fine.
After you have blended your ginger root, pour it through a very fine strainer into your fermenting jar.
After all the ginger water has passed through, grab the fibrous root left over and squeeze several times until all that fresh ginger juice is extracted and you are left with a clump of damp fiber (which you can compost, throw away , etc).
Put the ginger beer into your jar full of ginger juice and add the sugar and cream of tartar.
Top off the water until you hit 8 cups (ginger juice accounts for some of it).
Stir everything very well.
Let sit about 3-7 days. 5 days is a good point to start with.
You can adjust your next batch if you find this one too sweet or too dry/bitter. In the winter it will need more days to ferment, and in the summer, less days.
You should end the ferment basically when it is slightly sweeter than you'd like the finished product to be, because you will now be bottling it for another 5-7 days (use a strong swing top bottle, or other beer bottle made for this task). This will allow it to carbonate and continue to ferment and develop all the wonderful complex flavors that ginger beer is loved and known for. Open outside or in your shower just in case! I've had this explode in my face before. Others have had their living room sprayed with sticky ginger beer and it's 'fragrance' for weeks (so you've been warned!;)).

A note on Ingredients and Fermentation Times:

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. See some further notes on ginger towards the top of the guide, under ingredients.

Spices: Many spices and dried (un-sulfured) or fresh fruits may be added, such as cinnamon, nutmeg, rose water, and cardamom butthis in entirely a matter of taste. See some further notes on added ingredients towards the top of the guide, under optional ingredients.

Fermentation time: Some people add all the sugar at once, as above and possibly bottle with some additional sugar. Others add small amounts of sugar daily for a week.Typically a short fermentation produces a nice, sweet ginger beer with a cleaner and clearer ginger taste. The longer fermentation can produce a thicker body, with a somewhat drier, more fermented flavor. In either case the total sugar is similar, and additional sugar may be added at bottling if desired (for added sweetness or carbonation help). Some spices or other flavors can be added at bottling (like rose water and lemon) rather than during fermentation.

Cream of Tartar: It seems to be used to improve the ph, 'head' and add a mild bitterness to the brew.

Protein: A pinch of protein powder now and then can improve the formation of polysaccharides. This gives a better head and a more viscous mouth feel. Too much and you'll get gooeyness. This is more of a brewing thing, and is not necessary.

Extra Grains and Storage

After your first few batches:

As you continue to make ginger beer your plant may grow. It grows at a slower rate usually than grains such as water kefir. At that point, you can either increase your recipe accordingly, or store them (it's always a good idea to have some back-up on hand!). They also are a good addition to a compost pile! :)

Eating the plant is another way to get a mega dose of probiotics. Start with a very small amount of balanced, healthy grains and see how your body responds. Unlike milk kefir grains, these are rather bland and flavorless, but have a fun crumbly rubber texture. We still like eating them ourselves once in awhile (as do our dogs and chickens!). You can also blend them in with your drink or smoothies (throw in some bananas and strawberries for fun!). Everyone is different and some people may be sensitive or not quite use to the sheer number of good bacteria and yeast contained in the grains. As with all things, listen first to your body.

How to store your extra grains:

Freezing *- best for medium to long term storage*

Freezing is probably not the best option, but if you prefer, here is what to do! To freeze, rinse your plant if you wish with water (no chlorine, no heat) and then gently pat them dry with a clean cloth or paper towel. You can take them directly out of a finished batch and just pat them dry (they will be more sticky, but rinsing is not absolutely necessary).They will still be damp, now take them and roll them in a bowl of sugar until well coated. Then fill a freezer bag or jar with a generous amount of sugar and bury them in it (to protect them from air, moisture and freezer burn). You can also try freezing them directly in their ginger beer jar, but it is much more damaging, since the water expands as it freezes. It's recommended the plant spends no longer than six months in the freezer. However, some have had success reconstituting frozen GBP after more than 2 years (though we can't say what the quality or health of it was this point!).If you have a self-defrosting freezer, you can try freeze-drying your plant at home. Try to start with small grains of uniform size (gently separate larger grains with your fingers to make smaller if necessary). Place your plant on a porous, non-metal surface, such as some nylon suspended above a cookie sheet. Allow them to freeze openly in your freezer for about 3-5 days. This will only work in a self-defrosting freezer that is able to wick away moisture as they freeze, allowing them to dry. When they are dry, store them buried in sugar in the freezer (in a jar or bag) or in a vacuum-sealed bag.

Dehydrating *- best for long term, convenient and/or transportable storage*

1. Pat your plant grains dry with a clean cloth or paper towel. You may rinse them ahead of time if you wish In chlorine-free water.
2. Lay out on a clean surface. A cloth or paper towel works well for non-fan drying, a plate, wax paper or any clean surface (non-metal) works fine for forced air drying. Skip to step 6 if you have a fan or dehydrator.
3. If you don't have a fan, cover loosely with paper towel to protect them as they dry, this will take about 2-5 days, depending on room temperature and humidity.
4. Check them as they are drying, flipping them around half-way to expose the damp parts near the bottom.
5. If you have a fan, lay them out as mentioned in step 1 and angle a low or medium force of air towards them (just be careful not to blow them away!). If you have a dehydrator that can do 80°F or less, than this is an acceptable method as well. They will dry in about 12-48 hours, depending on room temperature and humidity.
6. You can stop the drying when they appear almost dry but are still barely squishy if you are storing them for a short period of time (such as a week or two). They are slightly more active and fresh in this state. Otherwise proceed to the next step.
7. When the grains are completely dry (hard, small, and depending on sugar, either clear or a shade of light to dark brown) put them into a plastic bag or jar with cotton balls (to absorb excess moisture) and store them at room temperature or in the refrigerator. Dehydrated grains can successfully be reconstituted after a year or more.

Refrigerating *- best for temporary storage*

If you need to store them temporarily, you can always put them either in their own ginger beer or in a little plain water in the fridge. They can even do ok without any liquid, placed in an airtight jar. The colder temperature will greatly slow the fermentation process. This is the best method of storage if you're planning to take a break of about a month or less. It may take a batch or two to fully reactive them. If you're taking a longer break, dehydrating is recommended.