

HOW TO MAKE Ginger Water Crystals

FRESHLY
Fermented

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WHAT TO DO ONCE YOUR GINGER WATER CRYSTALS ARRIVE

Once you receive your ginger water crystals from us, it's important to get them fermenting as soon as possible. If you're unable to do that right away, ensure you activate them before the use-by date stated on the packaging and store them in the fridge until you are ready to start using them.

- WHAT EQUIPMENT DO I NEED? -



BREWING JAR



SIEVE



WATER FILTER



JAR COVER



GLASS BOTTLES



FUNNEL



MEASURING JUG

GINGER WATER CRYSTALS AND METAL

You will often hear that you should not use metal utensils while making ginger water crystals. Although this holds some truth, it has been greatly exaggerated! Ginger water crystals gets very acidic, if left in contact with metals for long periods of time, in theory it could degrade and rust the metal. That metal would then end up in the ginger water crystals and eventually in you. However, using a stainless steel strainer/sieve or spoon while making ginger water crystals will not cause any problems. The contact time between the metal utensils and ginger water crystals will always be very short. Never leave anything metal in contact with ginger water crystals for long periods of time.

BREWING JAR

You need something to brew your ginger water crystals in. We recommend using something glass. Glass is much easier to clean and keep sterile. Plastic tends to degrade over time and is prone to scratches which can harbor unwanted bacteria. Plastic also carries a risk of chemical contamination from the materials contained inside of it such as BPA. A glass Kilner style jar is perfect to use.

STRAINER/SIEVE

You also need a strainer/sieve.

WATER FILTER

We also recommend you buy a water filter to remove the chlorine from your tap water. You can use bottled water, but this tends to get expensive. You can also use coconut water in place of standard water.

JAR COVER

You also need something to cover your jar with. We recommend paper kitchen towels as they are easy to discard and replace. You can also use a muslin cloth or similar if you wish. Rubber bands also come in handy to secure the cover to the jar.

You can also remove the rubber seal from the lid of any swing-top jar (such as the Kilner jars supplied in our kits). With the seal removed you can close the lid while still allowing airflow during fermentation.

GLASS BOTTLES

You also need some bottles to store your ginger water crystals in. Again we recommend using glass bottles. We find screw lid style bottles suitable for fermentation work best with ginger water crystals. If you are worried about explosions and glass, you can use plastic bottles. Plastic tends to degrade quickly. It also carries a risk of breaking down into the mixture due to the acidness of ginger water crystals. Make sure you use BPA free plastic.

It is important when using glass bottles to check and burp (release some of the gas build-up) on a regular basis to minimize the risk of explosions.

FUNNEL

It is useful to get a funnel to help pour the liquid into the bottles.

GLASS/PLASTIC MEASURING JUG

It is also useful to have something to decant your strained mixture into. Glass or plastic measuring jugs are perfect.

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WHAT INGREDIENTS DO I NEED?

You only need 3 ingredients to make ginger water, Ginger, water and sugar. We prefer to use dried powdered ginger, as fresh ginger carries a risk of mould contamination.

When using water, it must not be chlorinated. This is very important as chlorine will damage and possibly kill your ginger water crystals culture overtime. We recommend using filtered water, which can easily be obtained by using a charcoal-based filter jug. Alternatively, you can use bottled mineral water.

It is best to use cane sugar. Cane sugar is easily broken down by the culture. We only use organic golden granulated cane sugar with our ginger water crystals. However, you do not have to use organic sugar if you do not want too, as refined white sugar also works well. You can also use beet sugar.

Unrefined brown sugar can over mineralise your grains over time. When this happens, grains will start to swell and then break apart forming a mush like layer. This is unhealthy for your grains. We recommend not feeding ginger water crystals on dark refined sugars.

As ginger water crystals are a living product, no one can predict how your grains will behave. In time you will learn what works best for your culture.

ACTIVATION

You need to activate your ginger water crystals; this is to revive them from the shipping process. Add 250ml of *non-chlorinated water* to your jar per 20g of ginger water crystals. Add one tablespoon of sugar (15g) per 20g of ginger water crystals and stir, so the sugar begins to dissolve. Place your grains in a jar with and cover it. Leave them for 48 hours at room temperature (ideally around 20c). Strain out the ginger water crystals and discard the sugar water. It is likely little fermentation has taken place during this stage. So although it might seem wasteful to discard it, you would most likely just be drinking some very sweet sugar water. Your grains are now activated and ready to brew your first batch of ginger water crystals.

THE FIRST FERMENTATION

Pour 500ml of non-chlorinated water per 20g of ginger water crystals into your jar. Add one tablespoon of sugar (15g) per 20g of ginger water crystals and stir, so the sugar begins to dissolve. You can use warm water if you wish, however, we have never found any real need for this. Never use boiling/hot water. This will harm the ginger water crystals. Always allow any water to cool back down to room temperature (20c) if needed before continuing.

Now add one tablespoon of dried ginger (15g) per 500ml of the sugar/water mixture. Cover the jar and leave it at room temperature out of direct sunlight for 48 hours.

Never leave any fermenting product in direct sunlight. This can lead to unwanted bacteria and pathogens forming.

Add your ginger water crystals to the mixture. Cover the jar and leave it at room temperature out of direct sunlight for 48 hours. During colder times when the optimum temperature is not being met, you may need to leave the grains longer (72-96 hours) to ferment. We always recommended leaving the grains in the warmest possible location. If this is not possible, it may be worth considering investing in a heat mat or similar device.

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At this stage, the ginger water should still taste sweet. This is normal. The sugar left is required to carry out good carbonation (see the second fermentation below).

Strain the ginger water crystals out of the mixture using your plastic strainer, decanting the liquid into your measuring jug. This strained liquid is your drinkable ginger water. You can drink this right away if you wish. However, we would advise that you carry out the second fermentation stage on this liquid. Not only will it allow for carbonation (which makes it taste great), it will also increase the bacteria count and reduce the sugar levels further.

If you do not wish to carbonate your ginger water or carry out a second fermentation. We would recommend leaving the strained liquid unsealed at room temperature for a further 3-5 days to increase the bacteria count and reduce sugar levels further.

WHAT TO DO WITH THE GRAINS NOW

Place the ginger water crystals back into your fermentation jar and repeat the process to make a fresh batch of ginger water crystals. Usually, you would do this right away, while you are waiting for the second fermentation process on the batch made previously to finish. This is a continuous brewing cycle.

If you wish to take a break from this cycle, place the grains into the fresh sugar water and place them in the fridge. They can rest in the fridge for up to 3 weeks. Please be aware that an activation process is usually required to revive the somewhat dormant grains from the fridge.

Your grains will grow quite quickly. During the warm summer months, you may find they double in weight every 3-5 days. During the winter, they will usually double in size every 2 weeks.

When brewing with ginger water crystals, a good rule of thumb is to use 1 tablespoon of sugar per 20g of ginger water crystals. With a maximum of 40g of ginger water crystals per litre. Too much sugar or too many ginger water crystals can lead to over fermentation and more alcohol content.

This ratio is a guideline, not an exact science. Trial and error can be a big part of the fermentation process.

THE SECOND FERMENTATION

It is now time to carbonate your strained ginger water. At this point, your ginger water should still taste sweet. This is expected and does not mean your fermentation has failed. It is important for some sugar to remain for the carbonation process to work.

THE CARBONATION PROCESS

Using your plastic funnel, pour the ginger water liquid into your glass bottles and then seal them by closing the lids. The bottles need to be 100% airtight. In the summer leave the bottles for 3-5 days until carbonated. During the winter it can take up to 10 days. Check the bottles every 3 days for signs of carbonation by gently opening the lids to listen for gas. Ginger water crystals can get very fizzy in the summer. Always ensure you use bottles designed to hold carbonated drinks to avoid the risk of explosions.

For fizzy ginger water, it is important to use something fully airtight in the second fermentation process. If you are not getting much fizz, this usually means air is escaping from your container. It could also mean that the bacteria have already used all the sugar in your mixture. A small amount of sugar needs to be present to allow gases to be produced by the fermentation process. Usually, if you're adding fruit, this will contain the additional sugar required anyway.

The ginger water is now ready to drink. Place your bottles in the fridge to cool. Be very careful when opening the bottles. Ginger water crystals produce a very fizzy beverage.

Ginger water will keep in the fridge for around 30 days unopened. Once opened, it is best consumed within 3 days.

If you have more than one fermenting food culture at home, we recommend that you keep them at least 1 metre apart from each other at all times. This is to stop cross contamination of the different cultures. If you are working with dairy in particular, this is very important. Please contact us if you require further assistance with fermenting more than one culture.

Email: orders@freshlyfermented.co.uk

Tel: 0333 4451608

Address: Unit 35, Merlin House, 4 Meteor Way,
Lee-on-solent, Hampshire PO13 9FU

