



Cultured Buttermilk Instructions

Before you begin:

- The culture you receive will contain 3 teaspoons of dehydrated buttermilk starter. You will use this starter to create your first ½ cup of cultured buttermilk. Reserve half the dehydrated starter until you are certain your first batch of buttermilk has set properly. Since the dehydrated culture is shelf stable, you can also reserve half the dehydrated starter in a cool dry place to be used as a back-up in case your original culture needs to be replaced.
- If you use raw milk, please take a moment to read the special raw milk instructions before making your first batch.
- You will initially make ½ cup of buttermilk. Once this first ½ cup is finished culturing, you will be able to use it as a starter to make up two quarts of buttermilk.
- Whenever possible, we recommend using wooden utensils and glass jars (such as canning jars) when working with cultures.
- Do not consume any buttermilk which smells, looks or tastes unpleasant.

Making the Initial Batch of Buttermilk with Pasteurized Milk (raw milk users see additional instructions below):

1. Stir 1 ½ teaspoons of the dehydrated buttermilk starter into ½ cup of milk. Be sure to mix well so the dehydrated starter is fully incorporated into the milk.
2. Cover the jar with a towel or coffee filter and secure the cover with a rubber band. Do not put a lid on the jar as the starter needs to breathe to culture properly.
3. Let the mixture culture at room temperature (70-77 degrees) for **24-48 hours**. Check the culture every 12 hours or so. It is important to pick a location that is naturally warm (e.g. the kitchen) and out of drafts. Ideally, it should be the **warmest location in your home**. If your home tends to be cooler than 70 degrees at night, consider leaving the culture in the oven with the pilot light or oven light on. Alternatively, setting the

culture on top of a warm piece of electronic equipment (such as a television or cable box) or on a high shelf can also work well. Remember that drafts can affect the culturing process and cause the buttermilk not to culture properly.

4. Once the buttermilk is set (doesn't run up the sides of the jar when tipped), cover the jar with a lid and place the buttermilk in the refrigerator for 6 hours to finish culturing.

Making Subsequent Batches of Buttermilk with Pasteurized Milk (raw milk users see additional instructions below):

1. Stir ¼ cup buttermilk from your initial batch into ¾ cup of milk. You can make larger batches of buttermilk by adhering to the same ratio of ¼ cup buttermilk to ¾ cup of milk (e.g. adding one cup of buttermilk to three cups of milk will yield one quart of buttermilk).
2. Cover the jar with a towel or coffee filter and secure the cover with a rubber band. Do not put a lid on the jar as the starter needs to breathe to culture properly.
3. Let the mixture culture at room temperature (70-77 degrees) for **12-18 hours**. It is important to pick a location that is naturally warm (e.g. the kitchen) and out of drafts. Ideally, it should be the **warmest location in your home**. If your home tends to be cooler than 70 degrees at night, consider leaving the culture in the oven with the pilot light or oven light on. Alternatively, setting the culture on top of a warm piece of electronic equipment (such as a television or cable box) or on a high shelf can also work well. Remember that drafts can affect the culturing process and cause the buttermilk not to culture properly.
4. Once the buttermilk is set (doesn't run up the sides of the jar when tipped), cover the jar with a lid and place the buttermilk in the refrigerator for 6 hours to finish culturing.
5. When it's time to make a new batch, place ¼ cup of buttermilk from a previous batch in ¾ cup of new milk and start again. Buttermilk from batch A is used to make batch B, buttermilk from batch B is used to make batch C and so on. **To perpetuate the culture, be sure to make a new batch of buttermilk at least every seven days.** Waiting longer than one week between culturing can weaken and eventually kill the culture.

Directions for raw milk users:

1. Our cultures are commonly used with raw milk but doing so requires a few extra steps to ensure that a pure starter is maintained. If you do not maintain a pure

- starter, the bacteria in the raw milk will slowly kill the buttermilk culture and the starter will not perpetuate
2. To make a pure starter, heat ½ cup of milk to a least 160 degrees and then allow it to cool to room temperature (alternatively you could use a ½ cup of pasteurized milk).
 3. Add 1 ½ teaspoons dehydrated buttermilk starter to ½ cup of milk, stir very well. It is important that the dehydrated starter is fully incorporated into the milk.
 4. Cover with a towel or coffee filter and allow to culture at room temperature (70-77 degrees) for **24-48 hours**. It is important to pick a location that is naturally warm (e.g. the kitchen) and out of drafts. Ideally, it should be the **warmest location in your home**. If your home tends to be cooler than 70 degrees at night, consider leaving the culture in the oven with the pilot light or oven light on. Alternatively, setting the culture on top of a warm piece of electronic equipment (such as a television or cable box) or on a high shelf can also work well. Remember that drafts can affect the culturing process and cause the buttermilk not to culture properly.
 5. When the buttermilk is set (doesn't run up the sides of the jar), place a lid on the jar and set the buttermilk in the refrigerator for 6 hours to finish culturing. This is your pure starter. **Be sure to retain at least ¼ cup of the pure starter to make your next batch of pure starter** (see step 8).
 6. To make a batch of raw milk buttermilk, add ¼ cup of the pure starter for each ¾ cup of raw milk. Stir the mixture, cover with a towel or coffee filter and allow the buttermilk to set for **12-18 hours**. When the buttermilk is set (doesn't run up the sides of the jar), place a lid on the jar and set the buttermilk in the refrigerator for 6 hours to finish culturing.
 7. **Each batch of raw milk buttermilk must use the pure starter.** Do not try to culture a new batch of buttermilk using a previous batch of raw milk buttermilk. This will result in a compromised culture and over time your buttermilk will no longer culture properly.
 8. **Make a new pure starter at least every seven days** by heating ¾ cup of milk as directed in step one and mixing in ¼ cup buttermilk from the previous batch of pure starter.

Important Information:

- You can larger amounts of cultured buttermilk by adhering to the ratio of ¼ cup buttermilk starter to ¾ cup milk. Be sure to mix well. Very large batches (1/2 gallon) will likely take longer to set as the milk will take longer to come down to room temperature.

- Whole milk makes the thickest yogurt. Buttermilk made with low fat milk is likely to be thin.
- If you are culturing multiple products (e.g. different varieties of yogurt, buttermilk, kefir, Kombucha, etc.) be sure to keep a distance of at least several feet between cultures so they don't cross-contaminate each other. Over time, cross-contamination will weaken the cultures.

Trouble-shooting:

- Whole milk makes the thickest buttermilk. Buttermilk made with low fat milk is likely to be thin.
- Temperature is very important to successful buttermilk making (as with any culturing/fermentation task). Drafts from windows, air conditioners, etc. can affect the temperature where the culture is sitting. Warm parts of the house are generally best (e.g. the kitchen). If your house tends to be cooler than 70 degree (consider if the temperature drops at night) then choose a spot that stays warmer. Warm spots often include:
 - Inside the oven (with just the pilot light or oven light on),
 - On top of the refrigerator,
 - On top of a piece of electronic equipment (i.e. television, cable box, etc.)
 - Next to a computer,
 - On a high shelf,
 - Inside a cube-shaped dehydrator (such as an Excalibur or Sausage Maker brand) set on a very low setting (under 78 degrees)
- If your buttermilk doesn't set (i.e. stays the consistency of milk), take a portion of the non-set buttermilk, add it to new milk and repeat the process (even when the yogurt does not set, the culture is typically alive and well). Normally the problem can be attributed to room temperature. If the culture is too cool, it will not set properly but the milk is still retains the culture.
- In cooler environments, the buttermilk will likely take the entire time period (18/48 hours) to culture. Occasionally it will take bit longer. It's okay to leave the buttermilk to culture a little longer when necessary. Simply keep an eye on it and transfer it to the refrigerator as soon as it's set.
- Be cautious of overly warm temperatures. Temperatures above 78 degrees may cause the buttermilk culture to die. If the buttermilk mixture separates into curds (on the top) and whey (underneath), this may be a sign that the culture was too warm.