

The Buttermilk that we make here at Mt. Crawford Creamery is considered “traditional” buttermilk. It’s very thin and sweet. This article does an excellent job explaining the differences between traditional buttermilk and cultured buttermilk.

The myth of “authentic” full-fat buttermilk

Source: <http://www.heracliteanriver.com/?p=424>

January 29, 2012 [heraclitus](#)

If you read online cooking or recipe discussions, you frequently hear someone lamenting the fact that “all the stores around me only carry low-fat buttermilk.” This often ends with concern about the epidemic of low-fat products, how they want “authentic full-fat buttermilk,” and perhaps some story from childhood about how Grandpa always drank buttermilk that was thick and coated the glass and “surely wasn’t low-fat.”

There are numerous problems with these posts. The short story is that the “authentic” original buttermilk is ALWAYS “low in fat.” In the case of buttermilk labeling, the word “low-fat” does not mean “relative to what buttermilk naturally is,” but rather “low compared to *regular milk*.” In the weird world of product labeling, what is “low-fat” is not necessarily lower than is typical for the product, but rather lower than whatever the “standard” amount of fat for some product *category* is. Regular whole (“full-fat”) milk has between 3 and 4% fat. Traditional buttermilk produced in the traditional manner has less than 1% fat. Therefore, buttermilk, in the realm of dairy product drinks, is by definition “low-fat.”

Somewhere around the time of World War II, dairy producers started making a product that was very much like “authentic” buttermilk but produced in a very different manner. The vast majority of buttermilk found in supermarkets today — whether labeled low-fat, non-fat, or “full-fat” — is produced in this “unauthentic” manner. Most of it is also rather low in fat, for the simple reason that producers want to replicate the fat content of traditional “authentic” buttermilk, which is naturally very low in fat.

In the following discussion, I shall explain the details of these two different types of “buttermilk,” as well as giving an option for people who want to make “full-fat” (unauthentic) buttermilk at home.

“Authentic Buttermilk”

First off, let’s get one thing clear: buttermilk has no *butter* in it (or, at most, it has a trace amount). It is called “buttermilk” because it’s a liquid left over when producing butter. The butter is separated out, so the liquid contains very little butter and, therefore, very little fat.

Basically, when you take heavy cream and agitate it—whether in a traditional butter churner or in a stand mixer or by putting it in a jar and shaking it—it will gradually change form. It will usually absorb air, producing what we call “whipped cream,” the item that you might put on an ice cream sundae or a slice of pie.

Cream is what is known as an *emulsion* of fat in water. The fat in the milk is in very small particles that are separated and suspended in a liquid. When fresh milk is allowed to sit, these particles rise to the top, resulting in a greater concentration of fat, but still broken up in small particles. This is cream.

The process of agitating cream will allow these microscopic fat particles to start meeting up. They form larger and larger clumps, until the cream “seizes,” and a solid mass of mostly fat is left, with a liquid pooling around it. The solid mass is then pressed and washed, giving us *butter*. The leftover liquid (which originally held the fat apart in small particles) is called *buttermilk*.

The whole point of making butter is to remove as much fat as possible from the liquid, so buttermilk naturally has a very low fat content. When produced in traditional small batches without industrial equipment, the leftover liquid often still has a few tiny flecks of butter remaining in it, usually giving the buttermilk somewhere between 0 and 1% fat.

One can produce this sort of buttermilk very easily by whipping regular heavy cream until it seizes. The result will be a mass of wet butter and a liquid. However, the liquid will not generally have the tang of traditional buttermilk, because regular heavy cream is pasteurized and not fermented.

If you want to make traditional buttermilk, you’d need access to either raw milk (which has not been homogenized—the process used to break up the fat and prevent the cream from separating and rising to the top) or to raw cream skimmed from raw milk. The cream must then be left to ferment naturally. In the old days, there would be previous vats of fermented cream that could be added as a starter to get the fermentation going. Eventually, it will sour a bit.

When this fermented (soured) cream is churned, the butter will have a better flavor and the resulting buttermilk will be tangy and acidic. In any case, it will still be very low in fat. On the other hand, it *will* coat a glass, even with this low fat content. It isn’t particularly thick, but the leftover fat and protein molecules have mostly been damaged or clumped and removed from their original spread-out state in the liquid. Thus, they form a thicker texture or film than plain low-fat milk would. The fermentation step before churning will contribute further to this breakdown by leaving an acidic environment where remaining milk solids will have curdled slightly, again making the product thicker.

“Cultured Buttermilk”

If you buy buttermilk in a supermarket, chances are very good that it was not produced in this traditional manner, and most supermarket buttermilk has never been produced in the authentic manner. (To my knowledge, there is only one major brand, Kate’s Buttermilk from Maine, which claims to produce buttermilk in something like an authentic process.)

Instead, for generations—since around the time of World War II—the “buttermilk” sold in stores has generally had nothing to do with *butter* at all.

Dairy producers discovered that they could ferment *milk* (not cream) using particular strains of bacteria, and it would produce something with a similar acidic tang and slightly thicker consistency, much like traditional buttermilk. Effectively, the process is very similar to the production of yogurt, except different temperatures and different bacteria are involved. If you are buying something called “cultured buttermilk,” the product has no relation to butter production whatsoever. It is merely milk that has been cultured and soured by a particular strain of bacteria.

Most of these “cultured buttermilk” producers wanted to create a product with similar characteristics to traditional buttermilk, and using whole homogenized milk (with 3-4% milk fat) would completely change the fat content from the traditional 0.5% or so found in authentic buttermilk. This change in fat content could affect recipes that use buttermilk and assume that buttermilk basically has no fat. So, the vast majority of cultured “buttermilk” is produced from skim or very low-fat milk. The aim is to remain as “authentic” as possible.

Now it may make sense why cultured “buttermilk” is labeled as “low-fat.” It isn’t actually “buttermilk” at all. It’s just fermented regular milk, and usually it employs a low-fat version of the regular milk as a base, hence making the product “low-fat” fermented milk. As mentioned above, it is low in fat compared to whole milk, but the amount of butterfat in “cultured buttermilk” is often the same or higher than traditional authentic actual buttermilk produced from churning butter.

If You Really Want Buttermilk with More Fat

Now that we know that the “buttermilk” most people drink is not actually buttermilk at all, but rather a fermented milk product like yogurt or kefir, there’s no reason to restrict it to a version with less than 1% milkfat. It’s not “authentic,” but this product isn’t buttermilk anyway. Nevertheless, most producers only make a version with a low fat content, to mimic traditional buttermilk.

If you can’t find higher fat cultured “buttermilk” in your area, the answer is simple: make some yourself. Buy some “low-fat” cultured buttermilk and some higher fat milk (whole milk if you want, you could even mix in a little cream or something if you wanted even higher fat). Then follow a simple recipe:

1. Find a large clean glass jar, bottle, or jug that can hold the amount of buttermilk you want to make.
2. Mix together a small amount of the cultured store-bought buttermilk (get it as fresh as possible) with the regular milk in a ratio of 1 part buttermilk to 4 parts regular milk.
3. Once the two milks are blended, cover the container and put in a warm place (75-80 degrees Fahrenheit is pretty ideal) for 18 hours or so until the milk begins to thicken (“clabber”). The process may occur in as little as 12 hours or it may take 24 hours or a little more, depending on room temperature and other factors.
4. Refrigerate the fermented product and use as needed. After a couple weeks, some clear liquid may start to separate out; just stir back in before use. This is just the result of continued fermentation. I’ve found that homemade buttermilk is good for at least 2-3 weeks. After that, the texture will degrade, but it can still be used in baked goods as long as there hasn’t been any mold or anything (highly unlikely).

5. After making each batch, save a small portion in a separate container as a starter for the next batch. I have found that as long as you make buttermilk every 1-2 weeks or so, the starter works fine without any more work. If you wait longer between batches, the starter will still ferment, but the final product may be less consistent in texture; at that point, it is often easier to buy more cultured buttermilk from the store as a new starter rather than trying to rehabilitate the old one. (It can be rehabilitated, though — try a 1:8 mixture instead of 1:4, and repeat a couple times in a matter of days rather than waiting a couple weeks between batches.)

If you're worried about leaving milk to sit out and ferment, just realize that the acidic environment that is quickly produced will prevent the growth of just about all harmful bacteria. If you want to take an extra precaution, you could scald the milk at 180-190 degrees Fahrenheit before cooling to room temperature and mixing with the buttermilk, but this should be unnecessary when using fresh pasteurized milk. (Do NOT heat the buttermilk; it will kill the culturing bacteria.)

“Buttermilk” produced in this manner from whole milk will be quite thick and rich, and depending on how long you let it ferment, it can often get almost as thick as yogurt. There is nothing better than this very thick homemade “buttermilk” for use in baked goods. Whether you use the traditional “low-fat” or a higher fat version, the extra flavor and lift you get from such a thick tangy buttermilk is amazing.

Frankly, for all purposes other than drinking, homemade cultured “buttermilk” is the best way to go. But if you want the best flavor and texture for drinking, I don't think you can beat the real “authentic” buttermilk produced from the actual churning of fermented cream into butter. *And, it's naturally low in fat.*