a Where Healthy Food Starts guide

yogurt

CULTURES *for* HEALTH

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a Where Healthy Food Starts guide

Yogurt

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INTRODUCTION TO YOGURT

GETTING STARTED

YOGURT RECIPES

GF = Gluten-free

INTRODUCTION TO YOGURT

what to know about this fermented dairy product

What is Yogurt?

Originally a simple fermented dairy product, yogurt now has many variations and personalities. It can be thin and runny, or thick and firm. It can be made from cow milk, goat milk, sheep milk, nut milk, soy milk, rice milk, and numerous other creamy substances. In some countries the milk of buffalo, horses, yaks, or camels is used.

Essentially yogurt is the product of beneficial bacteria fermenting milk and turning it into a thickened, acidic food that will stay fresh longer than milk itself, and that contains millions of bacteria that are welcomed by the human gut.

The History of Yogurt

One of the oldest and most-popular fermented foods, yogurt is known around the world. Where did yogurt come from, and how is it made today?

The word *yogurt* comes from Turkey and refers to a tart, thick milk. Yogurt does not have one single origin, however. It can be found in nearly every culture that kept animals for milk. It was likely discovered in similar ways in each region. When fresh milk is left in a container with friendly bacteria, the milk thickens and develops a delicious sour taste. The lactic acid produced by the fermentation also acts as a preservative, helping the cultured milk stay pleasant longer.

Warmer regions favored thermophilic bacteria, while cooler areas favored mesophilic bacteria. Our Greek yogurt starter is an example of a heat loving (thermophilic) culture. Filmjolk is an example of a cooler temperature (mesophilic) culture.

Around 1900, scientists started studying and isolating the bacteria that make yogurt. Very soon after, they were able to combine selected strains that would culture reliably for commercial creameries.* These blends are called direct-set cultures. With no starter to maintain, direct-set starters made it possible for a company to consistently make the same yogurt with each batch. Thanks to their research, it is now simple to buy powdered yogurt starter such as our delicious Mild Flavor Yogurt starter and make this same yogurt at home.

In 1981, the FDA defined fresh, prepared yogurt in the US and stated that it must include *Lactobacillus bulgaricus* and *Streptococcus thermophilus.*** These strains are found in all of our direct-set starters, as well as our Bulgarian and Greek heirloom starters.

Does that mean the mesophilic starters do not make true yogurt? According to US law, these prepared cultures cannot be sold and labeled as yogurt. Traditionally, they have been known as yogurts, and most still refer to them as such. It certainly does not lessen their wonderful flavor or beneficial bacteria!

Many things have changed since people first cultured milk into a thick, tangy snack. However, yogurt is still tremendously popular and enjoyed around the world. History is likely to show that fact unchanged as long as people have access to milk!

*McGee, Harold. "Fresh Fermented Milks and Creams." *On Food and Cooking: The Science and Lore of the Kitchen*. Completely rev. and updated ed. New York: Scribner, 2004.

**http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=131.200

How is Yogurt Made?

True yogurt is made from animal milk. Theoretically, the milk of any mammal could be used to make yogurt. With care, yogurt cultures can also be used to ferment and coagulate non-dairy milks such as the creamy liquid obtained from nuts, rice, soy, or coconut. While these products are not technically yogurt, they can be used and enjoyed just like dairy yogurt, alone or in recipes.

Put very simply, the process of turning milk into yogurt involves fermentation. Certain types of bacteria act on the lactose (milk sugar) that is in milk, and produce lactic acid. The lactic acid lowers the pH of the milk, and causes the milk protein to coagulate and make a firm mass. The acidified milk is an inhospitable environment for destructive bacteria, so the yogurt stays fresh longer than untreated milk.

The bacteria that do this are called beneficial bacteria, because they support digestion and are nourishing, as opposed to pathogenic (harmful) bacteria that cause disease. The beneficial bacteria are called *probiotic.* They are similar or identical to the type of bacteria that live in the human gut and that are responsible for the process of food absorption. When you use live cultures, the probiotics stay in the yogurt, and the yogurt can then be used as a starter to make more yogurt.

Yogurt and Other Fermented Dairy Products

There are many different ways that beneficial bacteria can be introduced to milk to make an entirely new food. The main difference between the various fermented dairy products is the bacteria used to make them, resulting in different flavors and consistencies.

Yogurt can be cultured with a variety of different bacteria combinations, each of which gives the yogurt a characteristic taste and consistency. There are typically somewhere between two to six different bacteria strains in yogurt, and they are similar to the bacteria found in the intestines.

Kefir is a thickened milk made from little clumps of yeast, bacteria, and milk proteins that ferment the milk. There are dozens of different bacteria strains present in kefir grains. Kefir has a slightly sour flavor and sometimes a faint effervescence. *Koumiss* is a similar product, made from mare's milk.

Buttermilk is the name given to the whey that's left over when butter is made, but it can also refer to a milk drink made by adding bacteria to milk, producing a thickened product with a tangy flavor.

Sour cream is cream or high-fat milk that's been cultured and thickened. It's very slightly sour, and usually quite thick. It was originally made by letting fresh cream thicken naturally as a result of fermentation from the bacteria present in the cream. When cream is pasteurized and has no natural bacteria present, it must be fermented with added bacteria.

Crème fraîche is a European-style sour cream, slightly sweeter than what we are used to in America. It's also made by letting raw cream thicken naturally, or by adding buttermilk cultures to cream. Crème fraîche can be heated without curdling, unlike sour cream.

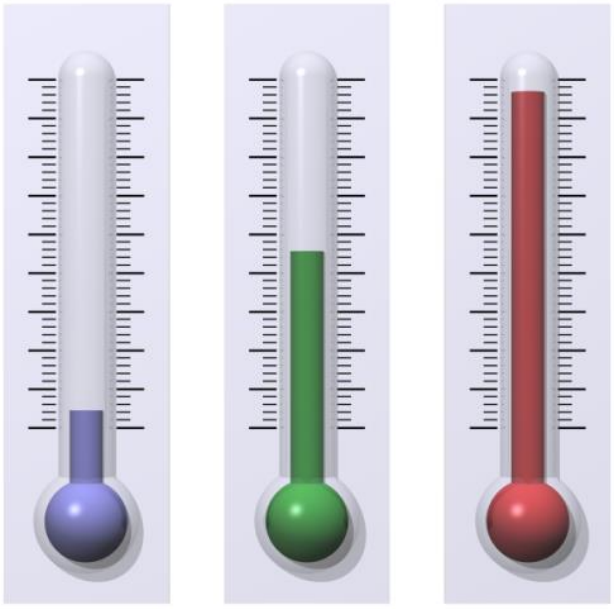
In recipes, you can often substitute one cultured milk product for another and get similar results. In fact, sometimes it is hard to tell the difference between a thin, tart yogurt and a thick, sour kefir, or a creamy buttermilk!

Soft and hard cheeses are also made by culturing milk over a longer period of time. Some cheeses can be easily made by straining the moisture out of yogurt or sour cream, while others require additional fermentation and culturing steps, and sometimes the addition of rennet to produce an additional type of culturing.

What Is the Difference between Yogurt and Kefir?

Many people assume that because yogurt and milk kefir are both cultured dairy products, there isn't much difference between the two. This is not true. There are many differences between yogurt and milk kefir, including how each is made, the types of bacteria present in each, and the flavor and consistency.

Starter Type



There are two types of yogurt starter: *mesophilic* and *thermophilic*. Mesophilic means that the yogurt starter is cultured at room temperature.

Thermophilic means the yogurt starter is heat-loving, and cultures at around 110°F, in a yogurt maker or similar appliance.

Milk Kefir is a *mesophilic* culture, which means it cultures at room temperature.

Propagation

There is also a difference in how each starter is propagated. Reusable yogurt starters, once activated, are re-cultured by mixing a bit of a previous yogurt batch into fresh milk. Once the new batch is complete it becomes the starter for the next batch, and so on. Yogurt cultures generally require reculturing once each week.

Direct-set, or single-use, yogurt starters come in powdered form, and are usually *thermophilic*. Each new batch of yogurt requires a new packet of starter. While this type of yogurt may be re-cultured a few times, at some point a new packet of powdered starter will be required.

Milk Kefir, on the other hand, is cultured using milk kefir grains. The "grains" are actually a gelatinous mass harboring a generous variety of bacteria and yeast from which one can make continual batches of kefir. Milk kefir grains should be transferred to a fresh batch of milk about every 24 hours.

Milk kefir can also be made from a powdered kefir starter, similar to the direct-set yogurt culture. Powdered Kefir Starter Culture may be re-cultured a few times using kefir from the previous batch, but eventually, new powdered starter will be required.

Types of Bacteria Present

Yogurt and milk kefir contain different types of bacteria, each of which performs different tasks.

The beneficial bacteria found in yogurt help keep the digestive tract clean and provide food for the friendly bacteria found in a healthy gut. They pass through the digestive tract and are called *transient* bacteria. A chart listing the bacteria strains found in each of our yogurt starters may be found here.

The bacteria in milk kefir, on the other hand, can actually colonize the intestinal tract. Kefir also contains a lot larger range of bacteria, as well as yeasts. For more information on the bacteria generally known to comprise milk kefir grains, click here.

Flavor and Consistency

Yogurt generally has a flavor familiar to most people. Different varieties of yogurt starter produce yogurt that varies from mild to tangy. The consistency of yogurt varies from a thin, pourable yogurt, such as Piima, to a fairly thick, creamy yogurt such as Bulgarian.

Milk Kefir is also tart, but it can have a touch of yeast flavor, due to the beneficial yeasts present in the culture. Milk kefir's flavor is more sour, and has been described as a cross between cultured buttermilk and yogurt.

Most varieties of yogurt are also thicker than kefir. While yogurt is almost always eaten with a spoon, milk kefir is usually consumed as a cultured dairy drink.

Versatility

Both yogurt and milk kefir may be made thicker by draining whey from the finished product. Draining whey from yogurt results in a thick Greek-style yogurt. Longer draining times yield labneh or yogurt cheese.

Milk kefir can be drained of whey to make a spoonable kefir, soft spreadable cheese, kefir cream cheese, or even hard cheese.

In addition to these different cheese products, both yogurt and milk kefir are quite versatile, and can be used in many recipes, from dips to baked goods.

Conclusion

Yogurt is a good source of probiotic bacteria, requiring weekly maintenance, depending on the culture chosen. It is generally a spoonable consistency and may be mild or tart in flavor. Yogurt may be used in a variety of recipes.

Milk kefir is a great source of probiotic bacteria and yeast, and requires daily maintenance, if using milk kefir grains. It is generally more sour in flavor and of a pourable consistency. Milk kefir may also be used in many, many recipes.

Getting started with a new culture can be intimidating. This list of basic ingredients and supplies can help you get started making yogurt successfully.

GETTING STARTED

how to prepare for making yogurt

Basic Ingredients and Supplies


- **Milk** choices vary widely, from dairy milk, to non-dairy milk, whole milk to non-fat, and pasteurized to raw. Choosing milk for making yogurt depends largely on personal preference, but there are other factors to consider.
- **Starter Cultures** can be a freeze-dried starter or store-bought yogurt. When choosing a yogurt starter, consider flavor, consistency, and bacteria content, as well as culturing methods required.
- A **Clean Glass Container** is best for making yogurt. Food-grade plastic can also be used but is not an ideal choice for yogurts that incubate at warm temperatures. Yogurt can be made in one large container or in single-serving containers.
- **Cover** the container with a tight lid or with a coffee filter or tight-weave cloth, secured with a rubber band. Once culturing is complete, put a tight lid on the container for storage in the refrigerator.
- A **Pot** for heating milk, if necessary, should be stainless steel, enamel, or glass. A double boiler can be helpful to keep the milk from scorching during heating.
- Using a **Thermometer** that measures lower temperatures is handy for yogurt making. Check the instructions for the yogurt culture you are using to find what temperatures you'll need to measure, and make sure your thermometer covers that range.
- An **Insulator** for keeping the yogurt warm during culturing may be necessary, depending on the culture used. A yogurt maker, a crock pot, an insulated cooler, or even a thick towel can help to maintain culturing temperature.

- A **Timer** can be helpful as a reminder to check on the culturing yogurt.
- **Measuring cups and spoons** are required to measure the yogurt and milk for each batch.
- **A place for the yogurt to incubate**, undisturbed, for the entire culturing period is important. The yogurt will culture for 5 to 48 hours, depending on the type of culture used. It should be at least 4 feet away from any other fermenting food.

Choosing a Yogurt Starter

Jump to Yogurt Culture Comparison Chart

There are many varieties of yogurt starter to choose from. All of them contain probiotic bacteria, and all of them will culture various milks, with some care.

While yogurt starter cultures can vary in taste and consistency, the type of yogurt culture you choose depends entirely on your personal preference.

Taste

The characteristic tangy taste of yogurt is due to the acidification of the milk during fermentation. The flavor can range from mildly sour to quite astringent and varies with the culture used, and the length of culturing time. Longer fermentation time usually yields a more tart flavor.

Consistency and Texture

There is a great range of thickness and texture in yogurt. The culture used, the culturing temperature and time, and the type of milk used all contribute to the consistency and texture of yogurt.

Yogurt may be thin enough to drink or thick enough to hold its shape on a plate. For a very thick Greek-style yogurt, draining whey is necessary.

Yogurt can be ropy, creamy, or gelatinous. These variations are due mostly to the type of bacteria in the culture.

Perpetuation

Direct-set or single-use cultures are added to a quantity of milk to produce a single batch of yogurt. With some care, a direct-set starter may be re-cultured two or three times by using some of the yogurt as starter for a new batch. Eventually, however, a new powdered starter must be used. Non-dairy milks generally do not re-culture.

Reusable or Heirloom cultures can be propagated indefinitely. With each batch, some of the yogurt is saved to add to a new batch of milk to make more yogurt. Reusable cultures should be propagated at least every seven days to maintain the vigor of the bacteria.

Culturing Temperature

Thermophilic means heat-loving. This type of culture is added to heated milk and cultured from 5 to 12 hours. Thermophilic cultures typically produce yogurt that is thicker than yogurt from a mesophilic culture.

Mesophilic means medium-loving, indicating that a mesophilic culture will propagate best at room temperature (around 70° to 77°F). With a mesophilic culture, there is no need to preheat the milk. The culture is simply added to cold milk and cultured at room temperature, usually between 12 and 48 hours. Mesophilic cultures typically produce yogurt that is thinner than yogurt from a thermophilic culture.

Comparison of Yogurt Cultures

Culture	Description	Process	Bacteria
Traditional Flavor	Tart flavor; thickest consistency	Direct-set, thermophilic	Bifidobacterium lactis, Lactobacillus acidophilus, Lactobacillus delbrueckii subsp. bulgaricus, Streptococcus thermophilus
Mild Flavor	Mild flavor; thickest consistency	Direct-set, thermophilic	Bifidobacterium lactis, Lactobacillus acidophilus, Lactobacillus delbrueckii subsp. bulgaricus, Lactobacillus delbrueckii subsp. lactis, Streptococcus thermophilus
Kosher Traditional Flavor	Tart flavor; thickest consistency	Direct-set, thermophilic	Bifidobacterium lactis, Lactobacillus acidophilus, Lactobacillus delbrueckii subsp. bulgaricus, Streptococcus thermophilus
Kosher Mild Flavor	Mild flavor; thickest consistency	Direct-set, thermophilic	Bifidobacterium lactis, Lactobacillus acidophilus, Lactobacillus delbrueckii subsp. bulgaricus, Lactobacillus delbrueckii subsp. lactis, Streptococcus thermophilus
Vegan	Takes on the flavor of the milk cultured; requires added thickeners	Direct-set, thermophilic	Bifidobacterium bifidum, Lactobacillus acidophilus, Lactobacillus casei, Lactobacillus delbrueckii subsp bulgaricus, Lactobacillus rhamnosus, Streptococcus thermophilus
Greek	Slightly tangy flavor; thicker consistency	Heirloom, thermophilic	Lactobacillus bulgaricus, Streptococcus thermophilus
Bulgarian	Mild flavor; thicker consistency	Heirloom, thermophilic	Lactobacillus bulgaricus, Streptococcus thermophilus
Viili	Mild flavor; thick and jelly-like.	Heirloom, mesophilic	Lactococcus lactis subsp. cremoris, Lactococcus lactis subsp. lactis biovar. diacetylactis, Leuconostoc mesenteroides subsp. cremoris
Filmjölk	Mild, slightly cheesy flavor; thick and custard-like.	Heirloom, mesophilic	Lactococcus lactis, Leuconostoc mesenteroides
Matsoni	Somewhat tart; thick and smooth	Heirloom, mesophilic	Lactobacillus lactis subsp. cremoris, Acetobacter orientalis
Piimä	Fairly mild flavor; thin and smooth	Heirloom, mesophilic	Streptococcus lactis var. bollandicus, Streptococcus taette

Choosing Milk for Making Yogurt

Yogurt characteristics are not only influenced by the culture used, but by the choice of milk. Milks from different animals and milks processed in different ways can result in differences in your yogurt's thickness and texture.

While most milk will culture well, there are some factors to consider.

Type of Milk

Cow milk is the most popular choice for culturing. Heating encourages the proteins to coagulate, resulting in a thicker yogurt than unheated or raw milk.

Goat milk is becoming more popular for culturing. The structure of goat milk is different from cow milk and results in a thinner finished yogurt than cow milk.

Sheep milk is sweeter than cow milk and contains more protein, resulting in a thicker, creamier yogurt. It is used more for making cheese than for making yogurt.

Non-dairy Milk may be used to make yogurt. Please see our article, Alternative Milks for Making Yogurt for special instructions.

Pasteurization

Pasteurized Milk is heated to 161°F for 15 to 20 seconds, then immediately cooled to 39°F for storage and transportation. Pasteurized milk generally produces good results when cultured.

Ultra-pasteurized Milk (UP) or ultra-high temperature treatment (UHT), is heated to 275°F or higher for about one second. UHT milk is actually cooked, and is therefore unsuitable for culturing.

If UHT milk is the only variety of milk available, we recommend using a direct-set culture such as our Traditional Flavored Yogurt Starter or our Mild Flavored Yogurt Starter.

Raw Milk is not heated and contains its own set of original microorganisms. Since these provide some competition with the bacteria in the yogurt culture, there are special considerations when making yogurt with raw milk. Because the milk is unheated, raw milk yogurt is generally thinner than pasteurized milk yogurt.

Many states place restrictions on the sale of raw milk. Please check your local laws governing the sale of raw milk as it varies from state to state.

Homogenization

Homogenization is a treatment that prevents the cream from separating from the milk. Most cow milk available in stores is homogenized. Goat and sheep milk are naturally homogenized.

With **non-homogenized milk** the cream will rise to the top of the yogurt just like it does with the milk, so the top layer of the yogurt will be thicker and more yellow in color.

Fat Content

Yogurt made with **reduced-fat milk** will be thinner than yogurt made with **whole milk**. Commercially available low-fat yogurts include additives and stabilizers to make them unnaturally thick, or they have been drained of whey to make a thicker product.

Many yogurt cultures perform very well in half-and-half or even in cream, producing a rich, thick yogurt that is almost like sour cream. When using a reusable yogurt culture, make sure to retain some yogurt from a previous batch to use as starter. Cultured cream does not re-culture well, as the lactose content is very low.

When it comes to milk, the possibilities are numerous, and the decision may be difficult if you have many varieties available. Try different kinds of milk until you produce a yogurt that suits your personal taste.

The choice is up to you!

How to Make Dairy Yogurt

Making yogurt for your family is fun and easy: add bacteria to milk and let it work. However, there are some steps particular to each type of culture and milk.

When choosing a yogurt starter, consider how each type works, and choose the one that best fits your lifestyle.

Yogurt making does not require any specialized equipment. This basic supply list can be helpful when starting out.

Preparing the Milk for Making Yogurt

The procedure for culturing a batch of pasteurized *mesophilic* yogurt does not require any heat, but for pasteurized *thermophilic* yogurt, the milk must be heated to 160°F, then cooled to culturing temperature, 110°F, before adding the starter culture.

To make raw milk yogurt, with any type of culture, there are special considerations, and an extra step may be required.

Inoculating the Milk

Using the correct proportion of culture to milk is important. The proper amount of culture will provide a nutritious environment for the bacteria to culture and thicken the milk properly. Follow the instructions included with your starter, for best results.

Culturing the Milk

The temperature of the culturing yogurt should remain fairly constant, and the yogurt should not be disturbed as it cultures. Maintain 105-112°F for thermophilic yogurt or 70-77°F for mesophilic yogurt.

Advice When Culturing Countertop Yogurt

Try these tips for Maintaining Temperature when Culturing Countertop Yogurt. Or learn How to Culture Thermophilic Yogurt without a Yogurt Maker.

Culturing time is important to making good yogurt. The amount of time the yogurt cultures depends on taste and texture preference. In general, the longer yogurt cultures, the more tart and thick it will be. Toward the limit of culturing time, the yogurt may begin to separate into solid (curds) and liquid (whey). The whey is quite nutritious and can be strained off to use in cooking or culturing, or it can be stirred back in to the yogurt.

Separation is usually the result of yogurt's culturing either too long or too fast. Once yogurt begins to separate, it is not long before the bacteria will begin to die off.

There is a 2-hour cooling-off period for thermophilic yogurt, to help ease the transition between culturing temperature and refrigerator temperature. Finished yogurt should be refrigerated for at least 6 hours to halt the culturing process.

Once the fermentation has been stopped, it will not restart even if the milk is brought back to room temperature.

If a thicker yogurt is preferred, draining whey from the finished yogurt is another option. Draining whey produces thick, Greek-style yogurt. For more thickening ideas, see our article on Adding Thickeners to Yogurt.

Maintaining Temperatures for Culturing Countertop Yogurt

One of the most important things to consider when making yogurt is the temperature at which it cultures. In different seasons, it can be difficult to maintain the proper temperature for countertop cultures (70°-77°F). Be sure to test the temperature of the culturing area prior to making yogurt. Place a jar of room temperature water in the area. Take readings at intervals during the culturing timeframe to ensure the range is correct.

Warm Oven. Setting the culture in a closed oven with the light bulb or pilot light on will maintain a constant culturing temperature.

YogoTherm. An insulated container such as the YogoTherm works to maintain temperature without electricity. Ambient temperature can have an effect on the culturing process; in cold weather, wrap with a warmed towel for added insulation.

Hot Water Bath. Set the covered yogurt jar in a large bowl, filling the bowl with hot water. The water level should be no more than one to two inches from the top of the jar. As the water cools, remove the jar gently, pour the water out, replace jar, and add hot water.

Appliance Boost. Wrap the jar of yogurt in a towel, placing near or on an appliance like a DVR machine, wood stove, or atop the refrigerator.

Folding Proofer. The Folding Proofer can be set to 70°-120°F for culturing yogurt. Perfect for mesophilic or thermophilic culturing!

Insulated Cooler. Put a jar of hot water along with jar of yogurt inside cooler. Replace jars of water as needed to maintain temperature.

Thermos. Culture yogurt in a beverage thermos. Wrap in a towel for added insulation, if necessary.

Seedling or Reptile Mat. Place yogurt on top of a seedling or reptile mat, which can raise the temperature 5-20°F above ambient temperature.

Elevation. Set yogurt in a high place, where air is warmer than counter height.

Oven. The pilot light in a gas oven may add enough warmth to culture thermophilic yogurt. In an electric oven, a candle or the oven light may keep the environment warm enough to culture thermophilic yogurt.

How to Culture Yogurt without a Yogurt Maker

Thermophilic Cultures

If you've come to love store-bought yogurt but not the price, it might be time to make your own yogurt at home, and for a fraction of the cost.

Choosing a yogurt starter that requires heat to culture, such as store-bought yogurt or a thermophilic starter, may lead you to the purchase of a yogurt maker. However, there are many ways to culture yogurt without a yogurt maker.

For best results, test the temperature of the method you choose prior to making yogurt. Place 110°F water into a container and take readings at various intervals with a thermometer, to ensure the range is correct.

Culturing Alternatives

- **Food Dehydrator** A box-style food dehydrator, with shelves removed and its door open/closed, works well to get the required temperature.
- **Folding Proofer** The Folding Proofer can have its temperature set where needed for yogurt.
- **Thermos** An insulated container such as a beverage thermos or the YogoTherm maintains temperature without electricity. Ambient temperature can have an effect on the culturing process; in cold weather, wrap with a warmed towel for added insulation.
- **Crockpot** The crockpot method allows the preparation and culturing of milk in one vessel.
- **Insulated Cooler and Water** Place yogurt jars in an insulated cooler, pouring 105°F to 115°F water inside about ¾ the way up the jars. Close lid tightly, covering the cooler in a blanket or towel. Change out water if temperature drops below 105°F.
- **Insulated Cooler and Heating Pad** Place yogurt jars in an insulated cooler with a heating pad set to low atop the jars, closing the lid with the cord hanging out. For added insulation, wrap cooler with a blanket or towel.

- **Insulated Cooler in the Sun** Set closed cooler in the sun.
- **Hot Water Bath.** Set the covered yogurt jar in a large bowl, filling the bowl with heated water. The water level should be no more than one to two inches from the top of the jar. As the water cools, remove the jar *gently*, pour the water out, replace jar, and add heated water.

How to Make Yogurt in a Crock Pot

If you own a crock pot then you are well aware of the help it can be in the kitchen. Most people think of it for one-pot-wonder meals like chili, soup, or stew.

An additional wonder is that the crock pot can act as a one-pot container for heating and incubating the milk when making yogurt. And it really couldn't be much simpler.

For reusable (heirloom) yogurt starters, please activate the starter first, according to the instructions included with your starter.

Crock Pot Yogurt

- Turn crock pot to low and pour in ½ gallon of milk.
- Heat on low for 2½ hours.
- Turn crock pot off and unplug it. Cool milk in the crock with the lid on for 3 hours.
- After 3 hours, remove 1-2 cups of warmed milk and place in a bowl. To that milk, add starter culture or starter yogurt, according to the culture's instructions.
- Thoroughly combine the milk and starter, mixing very well.
- Pour the starter-milk mixture back into the crock pot with the rest of the milk and whisk thoroughly.
- Place the cover back on the crock and wrap the entire crock pot in a thick bath towel or two.

- Culture 8-12 hours or overnight.
- After the culturing period, store in glass quart jars in refrigerator.
- For optimum texture, refrigerate for at least 6 hours before using.

NOTES: This recipe was developed with a 2-quart crock. If you are using a crock with a different capacity, adjustments may be required. Always test the temperature of the unit first, using water. Make adjustments as necessary to maintain the temperature required by your yogurt starter.

If your crock pot reaches temperatures greater than 115°F it will pasteurize raw milk, killing the raw milk's ambient bacteria.

If your crock pot does not maintain a consistent temperature, results may vary.

Thickening Homemade Yogurt

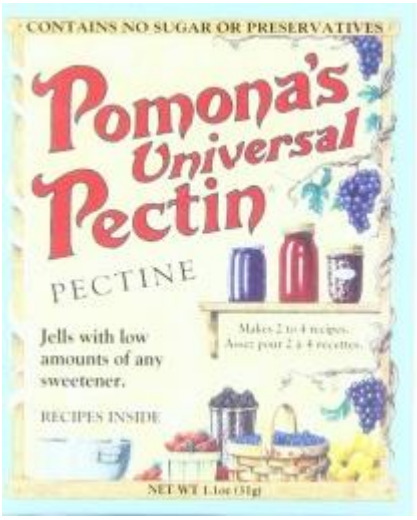
While many people enjoy yogurt fresh from culturing, some like to improve it by thickening.

Depending on the type of milk used and the culture chosen, yogurt can be as thin as buttermilk or as thick as sour cream. Choosing a different type of milk for making yogurt, or selecting a yogurt starter with different properties are two ways to increase thickness of the final product.

Here are some other ways to produce a thicker yogurt:

- **Heat the milk**: When preparing the milk, heat it to 160°-180°F, and maintain the temperature for 20 to 30 minutes. Then cool to culturing temperature.
- **Strain the yogurt**: Our Greek Yogurt Maker, a cotton bag or tight-weave cloth, or a piece of butter muslin are all effective tools to use for draining whey from yogurt.
- **Add thickeners** This is a process that is most successful with direct-set cultures, or when maintaining a separate mother culture, since the thickeners may interfere with reculturing. In general, yogurt will not thicken until cooled. In some cases this may take up to 24 hours. Even if the yogurt is thin, it is still a cultured food.

- **Milk solids:** Powdered milk solids generally come in cow, goat, and soy varieties. For every 3-4 cups fresh cow milk use ½-1 cup powdered milk. If using fresh goat milk or soy milk add ¼-½ cup powdered milk.



- **Gelatin:** For every 3-4 cups milk, sprinkle 1 teaspoon of gelatin into 1 cup of milk. Gelatin must be heated to at least 95^{0}F to activate. Mix well to combine. For mesophilic yogurts, cool to culturing temperature before adding starter culture.
- **Pectin:** For 1 quart of yogurt, pour 2 cups of milk into a blender. Add 1-2 teaspoons pectin (depending on the type of pectin), and blend until pectin is incorporated. Add to the rest of the milk and heat to 140^{0}F. Cool to culturing temperature and add culture. The quantity of pectin may need adjusting depending on the milk or pectin used. Sugar-activated pectin may require additional sugar in the milk to be effective. Calcium-activated pectin uses the calcium in the milk to set up. When using non-dairy milks, add the amount of calcium water specified by the recipe.
- **Agar:** For every 3-4 cups milk, dissolve ½ teaspoon powdered agar into the milk. Heat to 190^{0}F and hold for 10 minutes. Cool to culturing temperature and add culture.
- **Guar gum:** For every 3-4 cups milk, add 1 teaspoon guar gum to a small amount of milk, heated and cooled to culturing temperature; mix well, then combine the small amount of milk with the larger portion of milk.
- **Tapioca starch:** For 3-4 cups of milk, dissolve 2 tablespoons tapioca starch into the milk and heat to 140^{0}F. Cool to culturing temperature and add culture.
- **Ultra-gel** *(modified corn starch)*: For 3-4 cups milk, add ¼ cup Ultra-gel to the heated and cooled milk. Mix well to combine. While regular corn starch can be used, it is not particularly stable and can yield an odd consistency.

How to Strain Whey from Cultured Dairy

Whey is often called for as a culture starter in cultured foods like lacto-fermented vegetables, beverages, and grains and flours. Whey can be obtained from any dairy product that has been truly cultured: yogurt, kefir, buttermilk, clabbered milk, etc.

Whey is full of the beneficial bacteria and enzymes found in these cultured dairy products. By using whey, the ferment is inoculated with the specific cultures in the whey. Many people prefer to use whey as it immediately adds the beneficial bacteria needed for lactic acid fermentation, and so acts as a bit of insurance for the home fermenter.

Straining whey is easy. The main objective is to remove any dairy solids from the liquid whey so that it isn't as perishable.

Equipment

- 1 deep bowl
- 1 fine mesh strainer
- A very clean tea towel, napkin, or coffee filter

Ingredients

- Cultured yogurt, kefir, buttermilk, or clabbered milk

Instructions

Place the strainer so that it is sitting atop the rim of the bowl, leaving a few inches of space below the strainer. Line the strainer with the tea towel, napkin, or coffee filter. Place the cultured dairy inside the lined strainer, being sure to keep the cultured dairy within the cloth or filter.

After a few minutes the whey should begin slowly dripping through the lined strainer and into the bowl. For best results the whey should be a translucent pale yellow with no white dairy streaks to it.

If you find that the first straining leaves some of the dairy solids in the whey, you can simply remove the now-thicker cultured dairy and its towel or coffee filter, then put a clean towel or coffee filter into the strainer. Move the strainer over a fresh bowl and pour the whey through the new filter.

Note that cheesecloth must be very tightly woven and layered in order to not allow any of the dairy solids to drip through. Coffee filters and tightly woven tea towels generally work the best.

Straining the whey for a few hours results in a soft, easily spreadable cheese of Greek yogurt texture. Straining overnight results in a denser, cream cheese-like texture and yields more whey in the end.

Store whey in a clean jar in the refrigerator, where it should last for months. The cheese can be stored in a separate container for a week or so and used as a cream cheese replacement or as a very thick yogurt.

Five Ways to Flavor Homemade Yogurt

Yogurt is a delicious way to boost probiotic intake. It can be a meal by itself, or it can be a topping, side, or even an ingredient. Here are five ways to enhance the creamy flavor of yogurt.

Sweeten it up!

1. Add a spoonful of jam or fresh fruit to replicate popular commercial yogurts. Start with 1 tablespoon per cup and adjust to taste.
    - Cut up, mashed, or pureed fruit or fruit juice
    - Jam, jelly or marmalade
    - Lemon curd
2. Add sugar, honey, maple syrup or any other sweetener to taste.
3. Flavor extracts. Add 2-3 drops of extract per cup of yogurt and adjust to taste.
    - Vanilla
    - Lemon
    - Peppermint
    - Root beer
    - Coffee flavoring syrups expand the flavoring possibilities and can be used as well.

Go Savory!

1. Herbs. Adding herbs to yogurt is an easy way to make an instant salad dressing, meat topping or vegetable dip. Combinations to try are
    - Lemon and dill (for fish)
    - Oregano and tomato (toss in a pasta salad)
    - Basil and parmesan (serve with fresh or roasted summer vegetables)
    - Salt and pepper (use plain or with cucumbers)
    - Herbs de Provence (brighten up leftovers)
    - Thyme and sage (perfect accompaniment to roast chicken)
2. Chutney, salsas, and cultured vegetables. Adding yogurt to spicy or strong cultures can tone down the heat and add a creamy base. Yogurt has been used traditionally with spicy foods to cool them off and open up the flavors.

How to Make Greek-style Yogurt

Thick, creamy, and decadent Greek-style yogurt is easy to make at home for a fraction of the cost of commercial varieties. Beyond the superior consistency, Greek-style yogurt contains more protein per ounce (due to the removal of a large portion of the whey) and can be used in place of sour cream in most recipes.

Step 1: Make Yogurt

Although Greek yogurt is traditionally made with a thermophilic yogurt culture such as our Greek Yogurt Starter, Greek-style yogurt can actually be made with virtually any variety of yogurt. Follow the instructions for the yogurt culture you are working with. Once the yogurt is fully set and chilled for at least 6 hours to halt the fermentation process, proceed to step 2.

Step 2: Strain the Yogurt

What makes Greek-style yogurt unique is the thick and creamy texture that is achieved through straining off a significant portion of the whey.

1. Place a colander in a bowl. Place a tight-weave towel, multi-layered cheesecloth, or large paper coffee filter in the colander. A cloth will generally strain more efficiently than a coffee filter.
2. Pour the yogurt into the cloth or filter. If using a cloth, gather the corners of the cloth together. Knot the corners together hanging the cloth over the handle of a kitchen

cabinet so it hangs over the bowl allowing the whey (clear or slightly cloudy liquid) to drip off.

3. Allow the yogurt to drip for 2 or more hours until the desired consistency has been achieved.
4. Once the process is complete, store the yogurt in the refrigerator.
5. The resulting whey can be used to ferment vegetables like cabbage. The purpose of the whey is to get the lacto-fermentation to start up a little faster. For instance, most recipes for sauerkraut recommend about 4 tablespoons of whey to a quart of cabbage. You can also add whey to your soaking grains or to smoothies for extra protein, either as liquid, or frozen in ice cubes. Refrigerated, your whey should stay good for months.

Drinkable Yogurt and Why It's Useful

Scandinavia has a lovely history of cultured foods. From sourdough breads to pickled herring to the drinkable yogurt known as piimä.

Piimä is a very thin yogurt, useful as a drinkable yogurt that is easy to serve from a glass.

How It Is Cultured

Piimä is cultured at room temperature, no yogurt makers required.

Because of its Scandinavian roots (Finnish, to be exact), piimä cultures do well in colder climates. In a warmer climate, piimä will simply culture faster, moving into the curds-and-whey stage much sooner than other yogurt varieties.

The Piimä culture can also be used with cream or half-and-half, for a thicker piimä cream, which can be used in place of sour cream or crème fraîche.

Flavor and Texture

Piimä has a lovely nutty, mild flavor. It is also the thinnest of the room-temperature cultured yogurts. Piimä is so thin, in fact, that it is more commonly drunk from a glass than eaten with a spoon. Piimä has a smooth texture and can sometimes have a stretchy consistency similar to honey.

How to Eat It

In Finland piimä is commonly drunk straight from a glass in the summer heat, with or without salt. Pour it over fruit or granola in a bowl, layer it in a parfait, eat it with cereal, dip fruit in it, or strain it through cheesecloth for a thicker consistency, then season and use as a spread or cheese.

Mix it with juice and drink it from a glass, blend it with frozen fruit for a smoothie, or top a favorite savory dish with this cultured milk product. Use it as the base of a salad dressing or vegetable dip.

Cultured piimä cream can be used in place of heavy whipping cream to make a nutty, probiotic-rich cultured butter.

Turn Piimä Cream into Butter

1. Remove piimä cream from refrigerator and bring to room temperature. (Click here for Piimä Cream recipe)
2. Agitate to form butter:
    - Stand Mixer
    - Place bowl in freezer for a few hours prior to making butter.
    - Place cream in bowl and turn the mixer on as high as possible without splattering the cream, monitoring carefully.
    - Within 1-2 minutes, the cream will have thickened a bit. At this point, increase mixer speed.
    - Continue to monitor closely, as butter may set quickly.
    - Once butter pieces begin to form, reduce mixer speed to allow butter to further clump together.
    - Agitate by hand
    - Pour cream into a large jar with a lid.
    - Shake the cream vigorously (good job for kids) until small balls of butter form.
3. Slow down the shaking so small balls of butter can clump together.
4. Pour butter into a small bowl.

5. Wash butter with filtered water, pressing out any remaining buttermilk with a spoon.
6. When the water runs clear, the butter should be free of buttermilk. Leaving buttermilk in the butter will cause the butter to spoil quickly.
7. Salt the butter and add herbs, if desired.
8. Wrap butter in wax paper and store in the refrigerator or freezer.

How to Make It

Piimä yogurt is made similarly to other room-temperature cultured yogurts. Click here for a video tutorial on making piimä.

Instructions for using our Piimä Yogurt Starter are also included with each box.

How to Make Raw Milk Yogurt

When using raw milk to make yogurt, there are several factors to consider. How will the bacteria content of the raw milk affect the yogurt culture? What is the consistency of raw milk yogurt? What are the potential risks?

Following the discussion of these special considerations are links to detailed instructions for each type of yogurt culture used for making raw milk yogurt.

Making yogurt with raw milk differs from using pasteurized milk and several factors should be considered.

Perpetuation of the Culture. Some varieties of yogurt starter (direct-set) are meant to be used once, while others (heirloom) are meant to be perpetuated from batch-to-batch.

If using a perpetuating yogurt culture, it is necessary to first make a pasteurized mother culture to inoculate each batch of raw milk yogurt, to keep your yogurt starter healthy.

Please note that yogurt made from a direct-set starter and raw milk may not re-culture well.

Bacteria Content. We recommend using only fresh milk to make yogurt. Raw milk comes with its own set of beneficial bacteria. If your milk is a few days old or wasn't chilled quickly enough, that bacterial count can be high. This means that the culture you introduce could have some hefty competition, which can lead to yogurt with an "off" flavor or yogurt that does not culture properly.

Consistency. Raw milk generally makes yogurt that has a much thinner consistency than yogurt made with pasteurized milk. There are several ways to thicken raw milk yogurt. The simplest option is to drain whey from the yogurt using butter muslin or a tight-weave cloth. Other options for thickening yogurt are available.

Raw milk is not homogenized; therefore, as the milk cultures and the yogurt sets, the cream will rise to the top. The top layer of the raw milk yogurt will be more yellow and of a much thicker consistency. This layer can be scooped off and eaten alone or mixed into the yogurt.

Risk. Although most people who consume raw milk do not feel that raw milk is inherently dangerous, there are risks to everything and people have become ill from raw milk. It is also possible to become ill from pasteurized milk. Talk to your farmer, research, and decide if these risks are worth it.

How to Make Direct-Set Raw Milk Yogurt

When using raw milk to make yogurt, there are several factors to consider. Once you've decided to use raw milk, however, the easiest culture to use with raw milk is a single-use, or *direct-set,* starter culture.

Starter Cultures

Direct-set yogurt cultures are one-time-use cultures. Either one of the following can be used as the starter culture:

- A packet of freeze-dried powder that is stored in the freezer and used to inoculate each batch *OR*
- A small amount of yogurt from the store. If using store-bought yogurt as starter, be sure to use an unflavored variety that is labeled "contains live active cultures."

We currently carry several varieties of freeze-dried direct-set starters: Traditional Flavor, Mild Flavor, Kosher Traditional Flavor, and Kosher Mild Flavor

Instructions

1. Heat the raw milk to 110°F. Food heated to 110°F is generally still considered raw.
2. If using a freeze-dried yogurt culture, add 1 packet* of culture to 1-2 quarts of milk.
3. If using store-bought yogurt, add 1 tablespoon of yogurt per cup of raw milk.
4. Stir gently until starter is fully incorporated.
5. Incubate the mixture at 105°-110°F for approximately 7-8 hours until set.
6. Place a tight lid on the container and refrigerate for at least 6 hours.

Advantages

- Easy to use, packets store in the freezer until you are ready to make yogurt
- The culture does not require regular care or maintenance
- Easy to take breaks from making yogurt using this type of culture
- Generally makes thicker consistency yogurt when compared to perpetuating cultures.

Disadvantages

- Direct-set cultures are single-use cultures, generally not able to be perpetuated or with very limited perpetuation lifespan
- If using a freeze-dried starter culture each box contains 8 packets of starter
- If using store-bought yogurt, you will need to buy a new container of yogurt on a regular basis to use as a starter culture.

How to Make Thermophilic Raw Milk Yogurt

When using raw milk to make yogurt, there are several factors to consider. To make yogurt with raw milk and our Heirloom Thermophilic (heat-loving) Starters requires an extra step, to ensure the culture remains viable for re-culturing indefinitely.

The initial step of activating the starter requires heating the milk to 160°F, to pasteurize it. If preferred, pasteurized store-bought milk may be used instead. Avoid ultra-pasteurized or UHT milk

Available Varieties: We currently carry two varieties of perpetuating thermophilic yogurt starters: Greek Yogurt Starter and Bulgarian Yogurt Starter

INSTRUCTIONS FOR ACTIVATING THE STARTER

1. Slowly heat 1 quart raw milk or store-bought pasteurized milk to 160°F.
2. Cool the milk to 110°F.
3. Transfer to a glass or plastic container.
4. Add 1 packet yogurt starter. Mix thoroughly.
5. Cover and incubate at 110°F in a yogurt maker or similar appliance for 5-12 hours.
6. Check after 5 hours to see if it has set. If it has not set, leave up to 12 hours, checking every 30-60 minutes.
7. Once it has set, or at the end of 12 hours, cover with a tight lid and cool for 2 hours at room temperature, then refrigerate for at least 6 hours.
8. This yogurt is the *pasteurized mother culture*. Always use the pasteurized mother culture as the starter culture for making raw milk yogurt and weekly batches of fresh pasteurized mother culture (see below).
9. Extra pasteurized mother culture can be eaten.

Even if the activation batch does not set, it is still cultured and can be used to make subsequent batches of yogurt.

INSTRUCTIONS FOR MAKING RAW MILK YOGURT

1. Heat 1 quart raw milk to 110°F.
2. Pour into a glass or plastic container.
3. Add 2-3 tablespoons pasteurized mother culture. Mix thoroughly. To make larger batches, use 1.5-2 teaspoons pasteurized mother culture per cup of milk, making up to ½ gallon per container.
4. Cover and incubate at 110°F in a yogurt maker or similar appliance for 5-12 hours.
5. Check frequently by tilting the jar gently. If yogurt moves away from the side of the jar in one mass, instead of running up the side, it is finished culturing.
6. Once it has set, cover with a tight lid and cool for 2 hours at room temperature, then refrigerate for at least 6 hours.
7. The raw milk yogurt can now be eaten.

INSTRUCTIONS FOR MAKING A NEW BATCH OF PASTEURIZED MOTHER CULTURE

Once every 7 days, use the pasteurized mother culture to make a new batch of pasteurized mother culture, to keep the yogurt culture strong.

1. Slowly heat 1 cup raw milk or store-bought pasteurized milk to 160°F.
2. Cool the milk to 110°F.
3. Transfer to a glass or plastic container.

4. Add 1.5-2 teaspoons pasteurized mother culture from the previous batch. Mix thoroughly. To make larger batches, use 1.5-2 teaspoons pasteurized mother culture per cup of milk, making up to ½ gallon per container.
5. Cover and incubate at 110°F in a yogurt maker or similar appliance for 5-8 hours.
6. Check frequently by tilting the jar gently. If yogurt moves away from the side of the jar in one mass, instead of running up the side, it is finished culturing.
7. Once it has set, cover with a tight lid and cool for 2 hours at room temperature, then refrigerate for at least 6 hours.
8. Always use the pasteurized mother culture as the starter culture for making raw milk yogurt and weekly batches of fresh pasteurized mother culture.
9. Extra pasteurized mother culture can be eaten.

Advantages

- If the pasteurized-mother-culture procedure is used, the yogurt culture can be perpetuated via the pasteurized mother culture from batch-to-batch
- No need to continually purchase yogurt starter.

Disadvantages

- Need to create and maintain a pasteurized mother culture to preserve the health of the yogurt culture when used with raw milk
- Generally makes yogurt with a thinner consistency than direct-set thermophilic cultures.

How to Make Mesophilic Raw Milk Yogurt

When using raw milk to make yogurt, there are several factors to consider. To make yogurt with raw milk and our Heirloom Countertop (mesophilic) Starters requires an extra step, to ensure the culture remains viable for re-culturing indefinitely.

The initial step of activating the starter requires heating the milk to 160°F, to pasteurize it. If preferred, pasteurized store-bought milk may be used instead. In that case, proceed to step 3 of Activating the Starter.

Avoid ultra-pasteurized or UHT milk

Available Varieties: We currently carry several varieties of perpetuating mesophilic yogurt starters: Viili, Filmjolk, Matsoni and Piima.

INSTRUCTIONS FOR ACTIVATING THE STARTER

1. If using raw milk, slowly heat 1-2 cups raw milk to 160°F.
2. If using 1-2 cups store-bought pasteurized milk, skip to step 4.
3. Cool the milk to 70-77°F.
4. Transfer to a glass or plastic container.

5. Add 1 packet yogurt starter. Mix thoroughly.
6. Cover with a towel or coffee filter, secured with a rubber band, or put a lid on the container.
7. Place in a warm spot, 70°-77°F, to culture.
8. Check after 24 hours to see if it has set. If it has not set, leave up to 48 hours, checking every few hours.
9. Once it has set, or at the end of 48 hours, cover with a tight lid and refrigerate for at least 6 hours.
10. This yogurt is the *pasteurized mother culture*. Always use the pasteurized mother culture as the starter culture for making raw milk yogurt and weekly batches of fresh pasteurized mother culture (see below).
11. Extra pasteurized mother culture can be eaten.

Even if the activation batch does not set, it is still cultured and can be used to make subsequent batches of yogurt.

INSTRUCTIONS FOR MAKING RAW MILK YOGURT

1. Put 1 cup raw milk into a glass or plastic container.
2. Add 1 tablespoon pasteurized mother culture. Mix thoroughly. To make larger batches, use 1 tablespoon pasteurized mother culture per cup of milk, making up to ½ gallon per container.
3. Cover with a towel or coffee filter, secured with a rubber band, or put a lid on the container.
4. Place in a warm spot, 70°-77°F, to culture for 12-18 hours.
5. Check every few hours by tilting the jar gently. If the yogurt moves away from the side of the jar in one mass, instead of running up the side, it is finished culturing.
6. Once it has set, cover with a tight lid and refrigerate for at least 6 hours.
7. The raw milk yogurt can now be eaten.

INSTRUCTIONS FOR MAKING A NEW BATCH OF PASTEURIZED MOTHER CULTURE

Once every 7 days, use the pasteurized mother culture to make a new batch of pasteurized mother culture, to keep the yogurt culture strong.

1. If using raw milk, slowly heat 1 cup raw milk to 160°F.
2. If using store-bought pasteurized milk, skip to step 4.
3. Cool the milk to 70-77°F.
4. Transfer to a glass or plastic container.
5. Add 1 tablespoon pasteurized mother culture. Mix thoroughly. To make larger batches, use 1 tablespoon pasteurized mother culture per cup of milk, making up to ½ gallon per container.
6. Cover with a towel or coffee filter, secured with a rubber band, or put a lid on the container.
7. Place in a warm spot, 70°-77°F, to culture.
8. Check after 12 hours to see if it has set. If it has not set, leave up to 18 hours, checking every few hours.
9. Once it has set, cover with a tight lid and refrigerate for at least 6 hours.
10. Always use the pasteurized mother culture as the starter culture for making raw milk yogurt and weekly batches of fresh pasteurized mother culture.
11. Extra pasteurized mother culture can be eaten.

Advantages

- Cultures at room temperature (70°-77°F) leaving the raw milk bacteria fully intact
- If the pasteurized-mother-culture procedure is used, the yogurt culture can be perpetuated from batch to batch via the pasteurized mother culture
- No need to continually purchase yogurt starter.

Disadvantages

- Need to create and maintain a mother culture to preserve the health of the yogurt culture when used with raw milk
- This type of yogurt culture makes the thinnest consistency yogurt.

How to Make Non-Dairy Yogurt

There are many reasons for choosing to make yogurt using non-dairy milk: a vegan diet, allergies to dairy, or a restricted diet. Whatever the reason, non-dairy milks *can* be cultured into yogurt, with some care.

Choosing a Non-Dairy Milk

Nearly any non-dairy milk can be cultured, including legume, nut, seed, grain, or coconut milk. While store-bought boxed or canned milk may be used, we recommend using milk with as few additives as possible. Homemade milks culture well and are easy to make.

Adding Thickeners

While non-dairy milk will culture without a thickening agent, it usually will not set. To produce a spoonable, fairly thick yogurt, choose a thickener that meets your dietary needs.

Choosing a Culture

To make a completely dairy-free yogurt, our Vegan Yogurt Starter is an excellent choice. If a small amount of dairy is tolerable, other dairy-based yogurt starters may be used, as long as a pasteurized dairy mother culture is maintained.

Choosing a Recipe

Our staff have developed these non-dairy milk yogurt recipes, using our Vegan Yogurt Starter and different thickeners. Choose one of our recipes or create your own combination of non-dairy milk, thickener, and starter culture.

- Vegan Yogurt Recipe (coconut milk, rice milk, soy milk)
- Raw Almond Milk Yogurt Recipe

- Hemp Milk Yogurt Recipe
- Dairy-Free Coconut Milk Yogurt Recipe

Special Concerns When Culturing Non-Dairy Milks

- Some alternative milks have added calcium. If using Pomona's Pectin as a thickener, it may be necessary to eliminate the calcium water, to avoid over-thick yogurt.
- Because some alternative milks have less sugar than dairy milk, it can help to add sugar to promote fermentation. Approximately 1½-2 teaspoons sugar per cup of milk is recommended. Rice milk doesn't need additional sugar.

Alternative Milks for Making Yogurt

The composition of alternative milks is considerably different from that of dairy milk. While yogurt cultures can be used to culture alternative milks, they won't survive in the alternative milks and cannot be recultured. To make yogurt with alternative milks, you must use a new starter each time.

Most alternative milks can be purchased commercially; however, they often contain additives that can interfere with the culturing process. Whenever possible, use milks without additives or preservatives.

The best way to ensure you have additive- and preservative-free milk is to make your own.

Making Your Own

It is fairly easy to make your own alternative milk.

Click the following links to learn how to make each type of alternative milk:

- Raw Nut Milk (almonds, hazelnuts, Brazil nuts, pecans, macadamia, walnuts)
- Cashew Milk
- Coconut Milk
- Hemp Milk
- Rice Milk
- Sunflower Seed Milk

- Soy Milk

Try These Non-Dairy Yogurt Recipes

- Coconut Milk Yogurt using Gelatin as Thickener
- Coconut, Rice, or Soy Milk Yogurt using Pectin as Thickener
- Raw Almond Milk Yogurt

Homemade Soy Milk

This preservative- and additive-free homemade soy milk works great for drinking, culturing, or making tofu. Use only white soy beans for making soy milk.

The leftover fiber is called okara, or *u no hara,* and can be dried or frozen for use in cooking, or as fertilizer. Soy yogurt made at home has a slightly grassy flavor compared to soy yogurt bought commercially.

Ingredients

- ½ cup white soybeans
- 2-3 cups water for soaking
- 4 cups water for blending
- Sugar to taste (optional)

Instructions

1. Soak soybeans in 2-3 cups of water overnight
2. Discard water and rinse soybeans
3. Remove skins as best you can
4. Add soybeans and 4 cups water to blender
5. Blend until smooth
6. Strain the blended mixture using butter muslin or a nut milk bag. A tight-weave cloth is preferable, as twisting the top tightly enables you to continue squeezing out more milk. Continue to step 7 if using the soy milk for making yogurt. Otherwise, cool and refrigerate.
7. Heat the strained milk in a heavy-bottom pan to 180°F (82°C). Hold this temperature for 20 minutes, stirring frequently to prevent sticking. Cool the milk and refrigerate.
8. Refrigerate up to 4 days.

Homemade Raw Nut Milk

This preservative- and additive-free homemade nut milk works great for drinking or culturing. Try it with our Raw Almond Milk Yogurt Recipe.

Ingredients

- 1 cup raw, unsalted nuts (almonds, hazelnuts, Brazil nuts, pecans, macadamia, walnuts)
- 2-3 cups water for soaking the nuts
- 4 cups water for blending

Instructions

- Soak the nuts in 2-3 cups water overnight.
- Drain and discard water.
- Blend nuts with 4 cups water until almost smooth.
- Strain the blended nut mixture using butter muslin or a nut milk bag. A tight-weave cloth is preferable, as twisting the top tightly enables you to continue squeezing out more milk.
- Refrigerate. The milk will keep in the refrigerator for 3-4 days.

NOTE: Cashew milk is made differently from other nut milks.

Homemade Rice Milk

Make non-dairy rice milk at home and avoid all the additives and preservatives found in commercial milk. This recipe can be made using brown or white rice.

Ingredients

- 1 cup cooked rice
- 4 cups water

Instructions

1. Blend rice and water in a blender until smooth
2. Strain the blended mixture using butter muslin or a nut milk bag. A tight-weave cloth is preferable, as twisting the top tightly allows more milk to drain through.
3. Refrigerate up to 3-4 days.

The remaining pulp can be discarded or dried and used as rice flour in recipes.

Homemade Hemp Milk

This incredibly easy recipe for making homemade hemp milk is the first step in making your own hemp milk yogurt.

Ingredients

- ½ cup hemp seeds (organic, hulled seeds)
- 4 cups water

Instructions

1. Blend hemp seeds in water until smooth. Use a high speed setting for 1-2 minutes in a standard blender. Or use the milk and soup setting with a high-powered blender such as a BlendTec or Vitamix.
2. Refrigerate. Hemp milk will be good for 5 days.

Homemade Sunflower Seed Milk

This amazing non-dairy milk recipe is satisfying and less expensive than using nuts. Try this recipe for drinking, making smoothies, or culturing.

Ingredients

- 1 cup raw, unsalted sunflower seeds
- 2-3 cups water for soaking sunflower seeds
- 4 cups water for blending
- Sugar to taste (optional)

Instructions

1. Soak sunflower seeds in 2-3 cups water overnight.
2. Drain and discard water.
3. Blend nuts with 4 cups water until smooth.
4. Strain the blended nut mixture using butter muslin or a nut milk bag. A tight-weave cloth is preferable, as twisting the top tightly allows more milk to drain through.
5. Refrigerate. The milk will keep in the refrigerator for 3-4 days.

Homemade Cashew Milk

Delicious, creamy homemade cashew milk is great for drinking or culturing.

Ingredients

- 1 cup raw, unsalted cashews
- 2-3 cups water for soaking the cashews
- 4 cups water for blending

Instructions

1. Soak the cashews in 2-3 cups water for 3 hours
2. Drain and discard water.
3. Blend nuts with 4 cups water until almost smooth.
4. Strain the blended mixture using butter muslin or a nut milk bag. A tight-weave cloth is preferable, as twisting the top tightly enables you to continue squeezing out more milk.
5. Refrigerate. The milk will keep in the refrigerator for 3-4 days.

Homemade Coconut Milk

This recipe is simple, yet versatile. Use homemade coconut milk for cooking, baking, drinking, or even culturing!

Leftover coconut pulp can be used to make coconut flour. Use a dehydrator or oven on lowest setting to dry the pulp. Fluff a few times during the drying process. For a fluffy, light flour, return the dried coconut flour to the blender or a food processor and pulse to break up the clumps. Use in any recipe that calls for coconut flour.

Ingredients

- 2 cups unsweetened shredded coconut
- 4 cups water
- ½ teaspoon guar gum (optional)

Instructions

1. Heat water until warm, but not boiling.
2. Add coconut and warm water to blender. Blend on high speed until smooth, about 1-2 minutes.
3. Strain the blended mixture using butter muslin or a nut milk bag. A tight-weave cloth is preferable, as twisting the top tightly allows more milk to drain through.
4. To strained milk, add guar gum, if desired, to make a smoother coconut milk for drinking, cooking, or making ice cream. Pulse a few times in blender.
5. Refrigerate up to 5 days.

How to Make a Dairy Mother Culture for Non-Dairy Yogurt

While our Vegan Yogurt Starter is ideal for culturing non-dairy milk yogurt, there is another option. When some dairy is tolerated, it may be more practical to maintain a dairy mother culture, using one of our many reusable heirloom yogurt starters. With this method, you will not need to purchase new yogurt starter regularly for use with non-dairy milks. Below are step-by-step instructions for each type of starter.

Avoid ultra-pasteurized or UHT dairy milk for making a dairy mother culture.

Maintaining a pasteurized dairy mother culture using a *mesophilic* heirloom starter

We carry four varieties of mesophilic heirloom starter: Viili, Matsoni, Filmjolk, Piima

I. Activating the starter culture:

1. If using raw dairy milk, slowly heat 1-2 cups raw milk to 160°F.
2. If using 1-2 cups store-bought pasteurized dairy milk, skip to step 4.
3. Cool the milk to 70-77°F.
4. Transfer to a glass or plastic container.
5. Add 1 packet mesophilic yogurt starter. Mix thoroughly.
6. Cover with a towel or coffee filter, secured with a rubber band, or put a lid on the container.
7. Place in a warm spot, 70°-77°F, to culture.

8. Check after 24 hours to see if it has set. If it has not set, leave up to 48 hours, checking every few hours.
9. Once it has set, or at the end of 48 hours, cover with a tight lid and refrigerate for at least 6 hours.
10. This yogurt is the *pasteurized mother culture*. Always use the pasteurized mother culture as the starter culture for making non-dairy yogurt and weekly batches of fresh pasteurized dairy mother culture (see section III below).
11. Extra pasteurized mother culture can be eaten.

Even if the activation batch does not set, it is still cultured and can be used to make subsequent batches of yogurt.

II. Making non-dairy milk yogurt

1. Heat 1 quart non-dairy milk to the temperature require for chosen thickener.
2. Add thickener.
3. Cool milk to 70-77°F.
4. Pour cooled non-dairy milk/thickener mixture into a glass or plastic container.
5. Add 4 tablespoons pasteurized dairy mother culture. Mix thoroughly. To make larger batches, use 1 tablespoon pasteurized mother culture per cup of milk, making up to ½ gallon per container.
6. Cover with a towel or coffee filter, secured with a rubber band, or put a lid on the container.
7. Place in a warm spot, 70°-77°F, to culture for 12-18 hours.
8. Shake or stir yogurt, then refrigerate. Yogurt will not set until after a refrigeration period of 6 hours.

III. Making a new batch of pasteurized dairy mother culture

1. Once every 7 days, use the pasteurized mother culture to make a new batch of pasteurized mother culture, to keep the yogurt culture strong.
2. If using raw milk, slowly heat 1 cup raw milk to 160°F.
3. If using store-bought pasteurized milk, skip to step 4.
4. Cool the milk to 70-77°F.

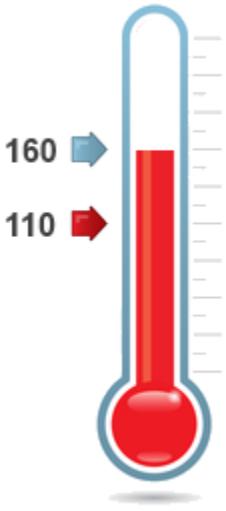
5. Transfer to a glass or plastic container.
6. Add 1 tablespoon pasteurized mother culture. Mix thoroughly. To make larger batches, use 1 tablespoon pasteurized mother culture per cup of milk, making up to ½ gallon per container.
7. Cover with a towel or coffee filter, secured with a rubber band, or put a lid on the container.
8. Place in a warm spot, 70°-77°F, to culture.
9. Check after 12 hours to see if it has set. If it has not set, leave up to 18 hours, checking every few hours.
10. Once it has set, cover with a tight lid and refrigerate for at least 6 hours.
11. Always use the pasteurized mother culture as the starter culture for making non-dairy yogurt and weekly batches of fresh pasteurized mother culture.
12. Extra pasteurized mother culture can be eaten.

Maintaining a pasteurized dairy mother culture using a *thermophilic* heirloom starter

We carry two varieties of thermophilic heirloom starter: Greek and Bulgarian.

I. Activating the starter culture

1. Slowly heat 1-2 cups raw or pasteurized dairy milk to 160°F.
2. Cool the milk to 110°F.
3. Transfer to a glass or plastic container.
4. Add 1 packet thermophilic yogurt starter. Mix thoroughly.
5. Cover and incubate at 110°F in a yogurt maker or similar appliance for 5-12 hours.
6. Check after 5 hours to see if it has set. If it has not set, leave up to 12 hours, checking every 30-60 minutes.
7. Once it has set, or at the end of 12 hours, cover with a tight lid and cool for 2 hours at room temperature, then refrigerate for at least 6 hours.



8. This yogurt is the pasteurized dairy mother culture. Always use the pasteurized mother culture as the starter culture for making non-dairy yogurt and weekly batches of fresh pasteurized dairy mother culture (see section III below).
9. Extra pasteurized mother culture can be eaten.

Even if the activation batch does not set, it is still cultured and can be used to make subsequent batches of yogurt.

II. Making non-dairy milk yogurt

1. Heat 1 quart non-dairy milk to the temperature required for chosen thickener, or at least 110°F.
2. Add thickener according to instructions.
3. Cool milk to 110°F, if necessary.
4. Pour cooled non-dairy milk/thickener mixture into a glass or plastic container.
5. Add 2-3 tablespoon pasteurized dairy mother culture. Mix thoroughly. To make larger batches, use 1½-2 teaspoons pasteurized mother culture per cup of milk, making up to ½ gallon per container.
6. Cover and incubate at 110°F in a yogurt maker or similar appliance for 5-8 hours.
7. Shake or stir yogurt, then refrigerate. Yogurt will not set until after refrigeration period of about 6 hours.
8. The non-dairy yogurt can now be eaten.

III. Making a new batch of pasteurized dairy mother culture

Once every 7 days, use the pasteurized dairy mother culture to make a new batch of pasteurized dairy mother culture, to keep the yogurt culture strong.

1. Slowly heat 1 cup raw or pasteurized dairy milk to 160°F.
2. Cool the milk to 110°F.
3. Transfer to a glass or plastic container.
4. Add 2-3 tablespoon pasteurized dairy mother culture. Mix thoroughly. To make larger batches, use 1½-2 teaspoons pasteurized mother culture per cup of milk, making up to ½ gallon per container.

5. Cover and incubate at 110°F in a yogurt maker or similar appliance for 5-8 hours.
6. Once it has set, cover with a tight lid and cool for 2 hours at room temperature, then refrigerate for at least 6 hours.
7. Always use the pasteurized mother culture as the starter culture for making non-dairy yogurt and weekly batches of fresh pasteurized mother culture.
8. Extra pasteurized mother culture can be eaten.

Vegan Yogurt

This non-dairy yogurt is prepared with pectin and calcium water. Working with non-dairy milks can be a bit tricky, and some brands of ingredients may work better than others. This recipe was tested with several brands of pectin and only Pomona's brand yielded satisfactory results.

Ingredients

- 3½-4 cups coconut milk, rice milk, or soy milk
- 2 teaspoons Pomona's pectin powder*
- 2 teaspoons Pomona's calcium water*, prepared according to package directions
- 1 package Vegan Yogurt Starter

Instructions

1. Add pectin powder to 1 cup room-temperature coconut milk. Blend in blender until well combined. Set aside.
2. Heat remaining 2½ cups coconut milk in a saucepan with the calcium water. Heat to 140°F.
3. Add reserved milk and pectin. Return to 140°F, then remove from heat.

4. When milk is cooled to 110°F, sprinkle vegan yogurt starter over milk and stir well. Pour into a clean 1-quart glass jar and cover, or pour into your yogurt maker jars and follow manufacturer's directions.
5. Culture for 6-8 hours at 105°-112°F.
6. Shake or stir and refrigerate. Yogurt will not thicken until after refrigeration time. Thickening may take up to 24 hours.

NOTE: To make 2 quarts non-dairy yogurt, use 3-4 teaspoons pectin powder, and 3-4 teaspoons calcium water with 1 packet of Vegan Yogurt Starter.

Some alternative milks have added calcium. If the milk thickens in the blender when pectin is added, do not use calcium water. Doing so can result in overly thickened yogurt.

*Each box of Pomona's Universal Pectin includes pectin and a separate packet of monocalcium phosphate.

Vegan Raw Almond Milk Yogurt

This recipe is based on making homemade raw almond milk, not using commercial brands of milk.

Ingredients

- 3½-4 cups Homemade Raw Almond Milk
- 2 teaspoons Pomona's pectin powder*
- 2 teaspoons Pomona's calcium water*, prepared according to package directions
- 1 package Vegan Yogurt Starter

Instructions

1. Measure 1 cup of almond milk and add pectin powder. Blend in blender until well combined. Set aside.
2. In a saucepan, slowly heat the remaining almond milk, with the calcium water added, to 140°F.
3. Add reserved almond milk/pectin mixture. Return to 140°F. Remove from heat.
4. Cool to 110°F. Sprinkle vegan yogurt starter over the milk and stir well.
5. Pour into a clean 1-quart glass jar and cover with a coffee filter, secured with a rubber band.
6. Incubate for 8-10 hours at 105°-112°F. The longer the yogurt incubates, the tangier it will be.

7. Shake or stir and refrigerate. Yogurt will not thicken until after refrigeration time. Thickening may take up to 24 hours.

NOTE: To make 2 quarts non-dairy yogurt, use 3-4 teaspoons pectin powder, and 3-4 teaspoons calcium water with 1 packet of Vegan Yogurt Starter.

*Each box of Pomona's Universal Pectin includes pectin and a separate packet of monocalcium phosphate.

Hemp Milk Yogurt

Make delightful non-dairy hemp milk yogurt at home. No additives, fillers, or preservatives in this amazing recipe!

Ingredients

- 3½-4 cups fresh hemp milk
- 2 teaspoons Pomona's pectin powder*
- 2 teaspoons Pomona's calcium water*, prepared according to package directions
- 1 packet Vegan Yogurt Starter

Instructions:

1. Combine pectin powder with 1 cup milk in a blender. Blend until smooth.
2. Heat remaining 3 cups milk in a saucepan with calcium water to 140°F.
3. Add reserved milk and pectin.
4. Return milk to 140°F and remove from heat.
5. When milk cools to 110°F, sprinkle vegan yogurt starter over the surface.
6. Stir well to combine.
7. Pour into a clean, 1-quart glass jar and culture at 105-112°F for 8-10 hours.
8. Shake or stir and refrigerate. Yogurt will not thicken until after refrigeration time. Thickening may take up to 24 hours.

NOTE: To make 2 quarts non-dairy yogurt, use 3-4 teaspoons pectin powder, and 3-4 teaspoons calcium water with 1 packet of Vegan Yogurt Starter.

Some alternative milks have added calcium. If the milk thickens in the blender when pectin is added, do not use calcium water. Doing so can result in overly thickened yogurt.

*Note: Each box of Pomona's Universal Pectin includes pectin powder and monocalcium phosphate for making calcium water.

Dairy-free Yogurt

Working with non-dairy milks can be a bit tricky and some brands of ingredients may work better than others. This recipe was tested using Native Forest and Natural Value brands of coconut milk and Great Lakes brand gelatin.

Ingredients

- 4 13.5-ounce cans of additive-free coconut milk (guar gum is okay)
- 1 tablespoon gelatin
- 1 packet Vegan Yogurt Starter

Instructions

1. Heat coconut milk to 115°F.
2. Remove one cup of coconut milk.
3. Sprinkle gelatin into this cup slowly while mixing well.
4. Add back to the rest of the coconut milk and mix well.
5. Cool to 110°F, then add culture. Mix well.
6. Pour into a clean jar and cover with a coffee filter, secured with a rubber band, or pour into yogurt maker container and follow manufacturer's instructions for covering the containers.
7. Culture at 108°F for 6 to 8 hours.
8. Shake or stir and refrigerate. Yogurt will not thicken until after refrigeration time. Thickening may take up to 24 hours.

NOTE: To make a smaller batch of non-dairy yogurt, use 2 cans coconut milk and 1½ teaspoons gelatin with 1 full packet of Vegan Yogurt Starter.

How to Store Yogurt and Yogurt Cultures



When you receive your freeze-dried yogurt starter, there is some time before it is necessary to activate it. Yogurt cultures last longest when stored in the freezer.

Once the starter has been activated, yogurt is generally good for eating up to 2 weeks, when stored in the refrigerator.

For re-culturing, we recommend using the yogurt within 7 days to make a new batch. If a longer break is necessary between batches, preserve some active cultures by freezing or drying. Neither method is completely reliable, but our customers report a fair amount of success with either.

Short Breaks, Up to 4 Weeks

- Put fresh, active yogurt in clean freezer-safe containers. Ice cube trays are convenient.
- For each cube, use the amount of yogurt that it will take to culture 1 cup of milk.
- Once frozen, store the cubes in an airtight container in the freezer.
- When ready to make yogurt, remove enough from the freezer to make a new batch, 1 cube per cup of fresh milk.
- Thaw before adding yogurt to prepared milk.
- The longer the yogurt is frozen, the less potent it will be as a starter culture. It may be necessary to use up to twice the amount if the yogurt was frozen for 3-4 weeks.

Long Breaks, Up to 3 Months

- Spread a small amount of starter on a piece of unbleached parchment paper.
- Leave the yogurt to dry in a warm, safe spot no more than 80°F.
- Once it is completely dry, store in a zip lock bag in the refrigerator.
- Under ideal conditions, the starter will keep for up to a few months.
- To rehydrate the yogurt or buttermilk, follow activation instructions included with the starter.

How Long Will Your Yogurt Cultures Last?

Direct-set cultures (Traditional Flavor, Mild Flavor, Vegan)

- At room temperature (68° to 78°F): 3 to 4 weeks
- In the refrigerator (40° to 45°F): 6 to 12 months
- In the freezer (0° to 25°F): 12+ months
- Maximum culturing temperature: 112°F

Heirloom Thermophilic Cultures (Greek, Bulgarian)

- At room temperature (68° to 78°F): 3 to 4 months
- In the refrigerator (40° to 45°F): 9 months unopened
- In the freezer (0° to 25°F): 12 months unopened
- Maximum culturing temperature: 112°F

Heirloom Mesophilic Cultures (Viili, Filmjölk, Matsoni, Piimä)

- At room temperature (68° to 77°F): 3 to 4 months
- In the refrigerator (40° to 45°F): 9 months unopened
- In the freezer (0° to 25°F): 12 months unopened
- Maximum culturing temperature: 77°F

Yogurt

- At room temperature (68° to 78°F): 3 to 6 hours (may remain edible for longer)
- In the refrigerator (40° to 45°F): 7 days to maintain re-culturing viability; 2 weeks for edibility
- In the freezer (0° to 25°F): 2 to 3 weeks to maintain re-culturing viability; 1 to 2 months (like ice cream) for edibility
- Storage recommendation: Refrigerate

Using Previously Frozen Milk for Culturing

A successful recipe depends on the quality of its ingredients. The fresher the ingredients, the better the final results. When it comes to cultured dairy, the quality of the milk is crucial to creating a successful end product.

Fresher milk will result in a better, more consistent cultured food. Dairy culturers often seek out locally produced milk, freezing it to keep it as fresh as possible. Others find freezing milk helpful since access to quality milk is limited by a short season. Although freezing milk is fine, it won't keep forever, and freezing can change some of its properties. Those changes can affect a cultured dairy product.

Potential Negative Effects of Freezing

Separation

Depending on the method of freezing milk, the fat or cream layer may separate from the milk. This separation is often more pronounced in cow milk, as goat and sheep milks are naturally homogenized. Separation can be caused by:

- A natural separation in cow milk due to the time it takes the milk to freeze
- A weakening of the membrane surrounding the fat globules, causing easier separation
- A freezer with an automatic defrost cycle causing milk to thaw and freeze again

- Thawing milk too rapidly or too slowly, especially cow milk.

Nutrient Loss

During freezing, as with other food preservation techniques, nutrients may be lost. Freezing food generally results in minimal loss, compared to other food preservation methods.

Off Flavors

- Milk frozen in improperly sealed containers can come into contact with other flavors or odors in the freezer, resulting in an off flavor.
- Any odors left in the vessel containing newly frozen milk will contribute negatively to flavor.
- Exposure to air while transferring milk into different containers, or during the process of freezing, can cause off flavors.

How Cultured Dairy Products Are Affected

Consider the following when using previously frozen milk:

- Taste the thawed milk. If the off flavor is subtle it may go undetected in a strongly flavored ferment like milk kefir. Yogurt and cheese likely would carry the off flavor to the end product.
- Use only fresh milk for cheese making. It tends to be a more finicky process than other cultured dairy products. Aged cheeses could be affected by fat separation. It may be difficult to produce curds or age/flavor properly with previously frozen milk.

The Benefits and Perils of a Long Culturing Time for Yogurt

Cultured foods are living foods and as such are rarely the same from one batch to the next. Culturing time, temperature, and microorganisms all play a part in determining what a particular batch of yogurt will be like.

What Makes Long-cultured Yogurt Different

Required culturing time varies between starter cultures. As the warmed milk is combined with the yogurt starter, the bacteria begin to feast on the lactose in the milk and produce lactic acid, and the culture proliferates and spreads throughout the milk.

The longer the culturing process goes on, the longer the culture has time to multiply, thereby increasing the amount of bacteria and acids in the yogurt while decreasing the lactose content of the milk.

Why 24 Hours?

Certain diets such as GAPS or SCD promote a 24-hour culturing period for yogurt.

Some people want to reduce lactose content in the final product as much as possible.

Concerns

Because the yogurt culture feeds off the lactose in the milk, a longer culturing time can stress the culture or even kill it, as the bacteria run out of food. As the bacteria begin to starve, it may affect a culture's ability to perpetuate beyond a single batch.

Solutions

Use a direct-set starter culture. We carry several varieties: Traditional Flavor, Mild Flavor, Kosher Traditional, and Kosher Mild.

If using a reusable heirloom starter culture, protect the health of the culture by maintaining a mother culture, prepared according to the instructions included with the starter. Always use the mother culture as starter for 24-hour batches and as starter for weekly fresh batches of mother culture. Avoid re-culturing using yogurt from a 24-hour batch as starter.

Ways to Use Yogurt

If you culture yogurt regularly, you may have an idea of its versatility. Did you know that yogurt can be used in baked goods and other recipes? The properties of yogurt make it ideal to use in a variety of ways:

Acidity: The natural lactic acid present gives yogurt its characteristic tang, which is helpful in recipes that call for vinegar or buttermilk.

Fat Content: Because yogurt made from whole or 2% milk contains some fat, yogurt can add richness to a recipe or substitute for another fat ingredient.

Protein Content: Be cautious when substituting yogurt for sour cream. Sour cream in a cooked recipe almost never curdles because it contains mostly fat, with very little protein. Yogurt may curdle if cooked too long or at too high a temperature, due to the higher protein content.

Beneficial Bacteria: Yogurt contains beneficial bacteria, which can help to break down or predigest different ingredients or foods. Once cooked, the bacteria will be killed.

Options for Using Yogurt

Base for creamy salad dressing. Instead of milk or mayonnaise, use yogurt as the base for your favorite creamy salad dressing recipe.

Use it in frozen treats: Yogurt can be substituted for milk in frozen recipes like ice cream, popsicles, and smoothies.

Base for smoothies. Yogurt makes an excellent base for smoothies. Add fruit, flavor extracts, nutritional yeast, wheat germ, etc. Let your imagination run wild!

In place of buttermilk or kefir in recipes. Yogurt can generally be substituted in recipes calling for buttermilk or kefir, including baked goods.

In place of milk in recipes. Yogurt can generally be substituted for milk in recipes. This works particularly well with yogurt varieties having a thin consistency.

In place of sour cream. Make a Greek-style yogurt by straining any variety of yogurt. Makes a wonderful substitute for sour cream as both a topping for dishes such as nachos and baked potatoes, as well as a base for dips.

In place of whipped cream. Pies, fruit, and other desserts can be topped with Greek-style yogurt.

In place of cream cheese. Make labneh or yogurt cheese and use it as substitute for cream cheese. Keep in mind that labneh tends to be a bit more tart than commercial cream cheese.

Use to soak flour or grain overnight, before cooking or baking.

Use as a marinade. Yogurt can be used to tenderize and flavor meat. Or dip chicken in yogurt before breading it for a juicier piece of fried chicken.

Add beneficial bacteria to pasteurized milk. Pasteurizing milk removes much of the beneficial bacteria. Using a thin consistency yogurt such as piimä to culture the milk can yield a mild-flavored, drinkable beverage that can be consumed in place of milk.

Baby formula. Yogurt makes a wholesome and easy baby formula if mother's milk is not available or must be supplemented. Use whole milk or goat milk for better texture and flavor, and choose a mild-flavored culture. Yogurt that is cultured for a shorter time will be thinner and sweeter, which is usually more attractive for a baby. Mix the yogurt with boiled, cooled water to make it thin enough to go through a nipple, and add just a few drops of unsulfured blackstrap molasses for additional vitamins and flavor. (Do not feed raw honey to infants under 1 year of age.)

Baby food. Yogurt also makes a simple base for baby's first foods. Puree or mash the food and mix it with yogurt. It's easy, nutritious, and tastes great! You can also freeze the yogurt-food mix in ice cube trays, then store the cubes in small containers for quick and easy snacks-to-go.

Some foods should be cooked first (like sweet potatoes or squash); some can be either raw or cooked (carrots, green beans); and some can be raw (fruits). All of them should be mashed or pureed for very young children. Some foods that can be mixed with yogurt for babies and toddlers include: sweet potatoes, squash, carrots, green beans, sweet peas, pumpkin, bananas, apples, pears, berries, cherries, prunes, apricots, peaches, mango, brown rice, oatmeal, chicken, ground beef, liver, turkey, ground lamb, scrambled egg.

Facial. Using yogurt as a facial is purported to tighten pores and clean the skin. Be sure to rinse thoroughly. Yogurt can also be mixed with a mild abrasive (finely ground nuts, sugar, etc.) to create a facial scrub.

On sunburns. Yogurt can be used to soothe sunburns. Unflavored is best.

Finger paint. Mix yogurt with food coloring or unsweetened powdered drink mix for an easy non-toxic DIY finger paint.

Encourage moss growth. Combine one part yogurt, one part water, and one half part lawn moss in a blender. Paint the mixture anywhere you want moss to grow such as between stones, on the side of planters, etc.

A Complete Guide to Cultured Smoothies

Blending up a smoothie can give you an opportunity to pack a nutritional punch with various nutrient-dense and cultured foods. Often the pickiest of eaters will gladly sip down a big frothy glass of kefir or yogurt if it is mixed with the right ingredients.

The Smoothie Base

The base of the smoothie is some type of cultured liquid. Choose from these cultured smoothie base options:

- Yogurt
- Kefir
- Buttermilk

Dairy-free yogurt or kefir works equally well as a smoothie base.

Additional Ingredients

Add ingredients to the smoothie base for extra nutrition, calories, and some yumminess, to keep them varied and interesting.

Herbal Boosters. Because smoothies usually contain a sweet component like fruit or sweetener, the sometimes grassy flavors of herbs can go undetected, for a bit of extra nutrition.

Egg yolks from pastured chickens add vitamins, minerals, and good fats. (Always exercise caution when using raw egg yolks.)

Nutrient-dense Fats. Adding coconut oil, raw butter, or cod liver oil to smoothies provides extra nourishing fats.

Recipes

By livening up your smoothies with various fruits, flavors, and combinations you can keep your family begging for more of these cultured drinks.

- Apple Pie Smoothie
- Watermelon Smoothie
- Cranberry Smoothie
- Pumpkin Smoothie
- Mango Smoothie
- Banana Smoothie
- Peachy Kefir Smoothie
- Dairy-free Piña Colada Smoothie
- Chocolate Kefir Smoothie
- Tropical Smoothie

Make Extra For Popsicles

Because smoothies are creamy and sweet they are excellent when made into probiotic popsicles. Simply take your leftover smoothie liquid (or make up a batch just for the occasion) and freeze into popsicle molds or small Dixie cups with popsicle sticks.

Ways to Use Whey

Whey is the yellowish liquid left over when you make various cultured milk products. There are actually two kinds of whey, and they have different uses.

Sweet whey is the liquid that is produced when making hard cheese like cheddar or most soft cheeses. Sweet whey can also be drained from clabbered raw milk, yogurt, milk kefir, or buttermilk

Acid whey is the liquid produced from making more acidic cultured dairy products such as paneer, feta, chevrè, or whole milk ricotta.

Uses for Acid Whey

- Soak grain for making breads.
- Feed it to animals. They may like sweet whey better, but whichever kind you feed them, be careful, because it can upset their digestion if they consume too much.
- Use whey on the skin and hair. Some folks claim that whey has excellent toning qualities for the skin and hair. Try some on a cotton ball and apply to your face as a toning agent or add a few cups to bathwater.

Uses for Sweet Whey

- Reconstitute fruit juice to add nutritional value.
- Use it as a starter culture when fermenting vegetables.
- Make whey lemonade.
- Add it to smoothies and shakes to provide more vitamins, minerals, and proteins.
- Use as cooking liquid for potatoes, rice, grits, pasta, and grains.
- Drink it straight.
- Make whey cheeses
- Make lacto-fermented drinks such as ginger ale and limeades.
- Put it in your compost pile. It adds nutrients and makes thick, black compost.
- All the uses listed above for acid whey.

Whey can be strained from cultured dairy and placed in a covered container in the refrigerator, where it will keep for several months. It can also be frozen and used at a much later date. Any way you decide to use this beneficial byproduct, be happy in the knowledge that you are adding some amazing extra nutrition to your diet and avoiding unneeded waste.

Yogurt Around the World

Many cultures have traditional milk dishes based on yogurt or yogurt-like cultured milks. Yogurt's classic taste lends itself to an assortment of recipes ranging from sweet to spicy delicacies.

Labneh is a strained yogurt, popular in Middle Eastern countries. Olive oil, cucumber slices, olives, and various green herbs may be added. It is used on sandwiches, but also can be thickened further, rolled into balls, preserved in olive oil, and fermented a few more weeks. It is sometimes used with onions, meat, and nuts as a stuffing for a variety of pies or kibbeh balls.

Mishti dahi is an East Indian dessert made by fermenting prepared milk and sugar into thick yogurt. Traditionally it is fermented in earthen pots, allowing moisture to evaporate naturally, creating a thick, custard-like product, much sweeter than Western yogurts.

Tzatziki is a yogurt sauce made with strained yogurt and grated cucumber, olive oil, salt, and mashed garlic. Tzatziki is served with grilled meats, in gyros and souvlaki pita sandwiches. Dill Tzatziki Sauce and Mint Tzatziki Sauce are flavorful recipes.

Lassi is a traditional cold beverage from India and Pakistan. Salted lassi can be blended with cumin or turmeric, while sweet lassi is blended with sweeteners, fruit juices or pulps, rosewater, saffron, butter, or other sweet substances.

Chaas or Mahi is a buttermilk (the liquid after butter is extracted) based drink containing raw milk, cream or yogurt. Seasonings for this Indian yogurt beverage include salt, cumin, mustard, coriander, asafetida, ginger, salt, and green chilies.

Clabber is a naturally fermented milk, made by letting raw milk sit at room temperature for several days, and the bacteria present in the milk act as the culture.

Amasi is an African yogurt with a mild, almost cheesy flavor, made by clabbering raw milk in a calabash (squash) container or a container made from hide. It can also be produced very much like yogurt, with Lactococcus lactis subsp. lactis and L. lactis subsp. cremoris bacteria in pasteurized milk.

Dadiah/Dadih, from Indonesia, is made by letting unpasteurized buffalo milk ferment at room temperature in a bamboo tube capped by a banana leaf.

Mast Va Khiar is a tasty dip originating from Iran. Also known as "Persian yogurt and cucumbers," it is mixed with various herbs to make a quick and easy staple for parties.

Shrikhand is a Middle Eastern yogurt dessert using nuts, raisins, and spices like cardamom and nutmeg. Sweetened with honey, this Indian recipe of shrikhand is served chilled.

Yogurt Starter FAQ

Jump to Yogurt Making FAQ

Click here for Yogurt Troubleshooting FAQ

Q. What types of yogurt starter cultures do you carry?

A. We carry direct-set and heirloom yogurt starter cultures. The heirloom starters are available in two types, mesophilic and thermophilic.

Q. What is the difference between the direct-set and the heirloom starter cultures?

A. Direct-set yogurt starter cultures are single-use cultures: one packet makes one batch of yogurt. Heirloom yogurt starter cultures are reusable indefinitely, with care. Heirloom yogurts must be recultured at least every 7 days.

Q. What is the difference between mesophilic and thermophilic yogurt starter cultures?

A. Mesophilic cultures at room temperature, 70°-77°F. Thermophilic cultures at approximately 110°F.

Q. What yogurt starter cultures do you carry?

A. We carry the following starters:

- Direct-set: Mild Flavor, Traditional Flavor, Kosher Mild Flavor, Kosher Traditional Flavor, and Vegan.
- Heirloom mesophilic: Viili, Piima, Filmjolk, Matsoni
- Heirloom thermophilic: Bulgarian, Greek

Q. What is the difference between the different starter cultures? What is the flavor, texture, consistency? What types of bacteria are in each?

A. A comparison chart, listing each yogurt culture in detail, may be found here.

Q. How long will the yogurt starter culture last if unopened? What do I do with extra packets of yogurt starter culture?

A. Extra packets of yogurt starter culture may be stored in the refrigerator or freezer. Information on how long each type of culture lasts may be found here.

Q. What ingredients are in your yogurt starter cultures?

A. Ingredients for every culture we carry are found on each product page.

Q. What kind of milk can I use?

A. Any type of pasteurized dairy milk can be used with direct-set and heirloom starters. Raw milk can be used, but when working with heirloom cultures, have special requirements. Alternative milks can be used, but will require thickeners in order to achieve a spoonable consistency.

Q. Why must heirloom cultures be recultured at least every 7 days?

A. In order to maintain culturing viability, to be able to use the culture indefinitely, you must make a new batch at least every 7 days.

Q. Why can't I reculture a direct-set starter?

A. Direct-set yogurt starters are one-time-use cultures. It is possible to use some yogurt made with a direct-set starter to make a new batch of yogurt, but after a few batches, the culture will weaken and a new dose of direct-set starter is needed.

Q. Why can't I reculture yogurt made with non-dairy milk?

A. Non-dairy milk is generally cultured using a direct-set starter. Please see previous question. Heirloom cultures consume lactose as their food source and cannot survive long term culturing alternative milk. A dairy mother culture must be maintained and used to culture the non-dairy milk. If you must be completely dairy free, the Vegan Yogurt Starter is your best choice.

Q. Will my yogurt culture better or have more probiotics if I use more than one packet? Can I use more starter culture to achieve a thicker yogurt?

A. Do not use more starter than recommended. Using too much starter can crowd the bacteria, causing the bacteria to run out of food before the yogurt completely ferments the milk. The result is often a thinner, sometimes bitter, yogurt.

Q. Can I combine different yogurt starter cultures or add a probiotic capsule to make a different kind of yogurt or increase the probiotic content?

A. Yogurt cultures are a carefully balanced combination of bacteria that will produce a particular type of yogurt. Mixing different cultures or bacteria together may cause the culture to weaken or die.

Q. Can I use raw milk to activate an heirloom yogurt starter culture?

A. Our yogurt starters are in a freeze-dried state. To safely activate them, we recommend using pasteurized milk (not ultra-pasteurized). To use raw milk, please follow instructions for Making Raw Milk Yogurt.

Q. Can I use goat milk to activate an heirloom yogurt starter culture?

A. Yes, as long as it is pasteurized. If using raw goat milk, follow instructions for Making Raw Milk Yogurt.

Q. Can I use non-dairy milk to activate an heirloom yogurt starter culture?

A. Non-dairy milk will not work to activate an heirloom starter. It must be activated using pasteurized dairy milk.

Q. Can I use raw milk, goat milk, or non-dairy milk with your direct-set yogurt starters?

A. Yes, raw, goat and non-dairy milk may be used with the direct-set cultures. If using raw milk, please follow instructions for Making Raw Milk Yogurt.

Q. Why can't I use ultra-pasteurized/UHT milk for culturing yogurt?

A. Milk that is "too clean," such as ultra-pasteurized/UHT milk, or milk that has been heated by microwave, may be too sterile for the yogurt culture to use as nourishment.

Q. Once I've activated the yogurt starter culture and used it to make a batch of yogurt, what should I do with what's left?

A. What you have remaining is yogurt. Eat it plain, sweeten or flavor it and enjoy!

Yogurt Making FAQ

Q. Why do I have to heat pasteurized milk when using thermophilic cultures?

A. Heating the milk to 160°F will kill any bacteria present in the milk that might compete with bacteria in the thermophilic cultures.

Q. Why do you recommend culturing no more than ½ gallon of yogurt per batch?

A. With that much liquid, it is difficult to keep temperature consistent. If culturing a thermophilic at 110°F, the outer portion is likely to be warmer or the center will never be warm enough. For mesophilic cultures, it takes a long time for milk come to room temperature and for the culture to begin working while the milk bacteria is building fast and can compete with the yogurt culture.

Q. How do I put my heirloom yogurt starter on hold while I am on vacation?

A. If you will be gone longer than a week, the best solution is to find a friend who can care for your yogurt culture. Another option is to freeze yogurt in ice cube trays to thaw later and use as starter yogurt. Freezing is not a perfect solution but it will usually work as long as the yogurt is only frozen for a short period of time (no more than a few weeks). Learn more here.

Q. Can I switch back and forth between raw milk and pasteurized milk for making yogurt? Can I switch back and forth between cow milk and goat milk? How about between low-fat milk and whole milk?

A. Yes, you can switch between milks for each batch of yogurt. Remember, if you are using raw milk with an heirloom (reusable) culture, you will need to maintain a pasteurized mother culture in order to preserve the viability of the culture.

Q. How do I know that my yogurt maker is operating at the correct temperature?

A. To test your yogurt maker, fill the interior container(s) with water (the same amount and temperature you would use with milk to make yogurt), then operate the yogurt maker per the manufacturer's instructions. Test the water with a thermometer after an hour and then again after 3-4 hours or so. The temperature should stay between 105°F and 112°F.

Q. I don't have a yogurt maker, but I want to culture a thermophilic yogurt. What can I do?

A. There are a variety of methods for maintaining appropriate temperature for culturing thermophilic yogurt. Explanation of the different methods can be found in our article, How to Culture Yogurt Without a Yogurt Maker.

Q. My house is colder than 70°F, how can I culture a mesophilic yogurt?

A. Many homes maintain temperatures that are cooler, especially in the winter. In our article, Maintaining Temperatures for Culturing Yogurt, find out how to keep your cultures the perfect culturing temperature.

Q. How do I make raw milk yogurt?

A. Please follow the instructions for the type of starter you are using.

Q. How can I make my yogurt thicker?

A. There are several ways to improve the thickness of the yogurt. Refer to the Thickening Homemade Yogurt article for information on a variety of thickening options.

Q. If I drain whey from my yogurt, how long can I store the whey in the refrigerator?

A. Whey will generally last about 6 months in the refrigerator. Always check the appearance and aroma. If it looks or smells bad, discard it.

Q. What do I do with whey?

A. Find lots of ideas in Ways to Use Whey.

Q. Can I make yogurt with lactose-free milk?

A. Maybe. Lactose-free milk isn't actually lactose-free, but has lactase added, which makes the lactose easier to digest. Check the label and if you see lactase, the milk does contain lactose and may be used to culture yogurt. Avoid ultra-pasteurized milk for making yogurt.

Q. How important is temperature when culturing yogurt?

A. The temperature for yogurt can vary within a certain range, but it is very important to stay within that range. Too warm and the bacteria will die. Too cool and the culturing will halt, and will likely not start again.

Q. How will I know when my yogurt has set?

A. Yogurt that has set will be more or less uniform in appearance: one solid mass. The yogurt should appear relatively smooth and should pull away from the side of the container when tipped. Sometimes a bit of whey will separate from the yogurt during the culturing process. This is completely normal.

Q. Why is store-bought yogurt thicker than homemade yogurt?

A. Store-bought yogurt generally contains thickeners. You can drain whey or add thickeners to homemade yogurt to achieve similar thickness. Details are in our article, How to Thicken Homemade Yogurt.

Q. When can I flavor my yogurt?

A. To avoid interfering with the culturing process, it is best to flavor after the culturing process is complete. This is most import when working with heirloom cultures.

Q. Can I use my yogurt to revive another culture (like milk kefir, buttermilk, etc.)?

A. No, combining different cultures leads to competition between bacteria. The bacteria can kill each other, ending in an undesirable finished product.

Q. Are there differences when culturing yogurt at high altitudes?

A. Making yogurt at high altitudes causes it to set faster. Putting yogurt in to culture overnight might not be wise.

Q. How long will finished yogurt last in my refrigerator?

A. In the refrigerator (40° to 45°F): 7 days to maintain re-culturing viability; 2 weeks for edibility.

Yogurt Starter Troubleshooting FAQ

Q. My first batch of yogurt (using the freeze-dried starter) has been culturing for the maximum number of hours but is still the consistency of milk. What should I do?

A. At times, the activation batch will not set up as expected. While it isn't the most desirable outcome, it should only happen with the first batch. Put a tight lid on the container and store in the refrigerator for at least 6 hours. Following the instructions for culturing, use a portion of the activation batch to culture the next batch. Subsequent batches should set up well. Any milk remaining from the activation batch is cultured and can be used in smoothies.

Q. My yogurt separated into solid and liquid layers (curds and whey). What happened?

A. Separation is usually an indication of overculturing or culturing at too warm of a temperature. Adjust the length of culture time and check the culturing temperature to make sure it is within the appropriate range.

Q. My yogurt seems to have set, but there's a little clear liquid (whey) floating on the top and the sides. Is this okay?

A. Some whey formation is normal when culturing. Drain the whey for a slightly thicker yogurt or stir it in, which will give you a thinner yogurt.

Q. My yogurt looks lumpy and curdled. What did I do wrong?

A. Sometimes overculturing (too long or too warm) can cause the yogurt to curdle or become lumpy before it separates fully. To make a smooth consistency, simply whisk it. (Remove some of the whey if you like, or stir it back in.) Check the culturing temperature to make sure it is within range: 105°-112°F for thermophilic cultures, 70°-77°F for mesophilic cultures.

A culture that is too old can also cause this problem. We recommend reculturing heirloom cultures within 7 days for best results.

Q. Why is my yogurt is grainy or gritty

A. If the flavor is pleasant, but the texture is grainy or gritty, it often indicates that the milk was heated too quickly. Heat milk slowly to avoid this issue.

Q. Why is my yogurt bitter?

A. Using too much starter can crowd the bacteria, creating a thin consistency and a bitter flavor.

Overcultured yogurt may also taste bitter. Check the culturing temperature to verify it is within the appropriate range.

Q. Why is my yogurt thinner than store-bought yogurt?

A. Store-bought yogurts generally contain thickeners. Drain whey or add thickeners to homemade yogurt to achieve similar thickness. Details are in this article: How to Thicken Homemade Yogurt.

Q. Why is my raw milk yogurt runny?

A. Heating denatures the milk proteins, which allows the milk to coagulate and thicken more. Raw milk has not been heated; therefore, the proteins remain intact and will not coagulate the same way and cannot create a thick yogurt. Choose options for thickening yogurt, if desired.

Q. Why is my yogurt too sour or not sour enough?

A. Temperatures on the higher end of the temperature range and longer culture times will yield a more sour flavor. To achieve a less sour flavor, culture at the lower end of the range or for a shorter period of time. If choosing to culture for a long periods of time, read our article, The Benefits and Perils of a Long Culture Time.

Q. Why is my yogurt foamy (or stringy) and yeasty-smelling?

A. This issue is generally caused by cross contamination from yeast, which can come from a sourdough starter culturing too closely, or wild natural yeast that has come in contact with the yogurt. To avoid this problem, be sure to clean all equipment, utensils, counters and other materials used in the yogurt-making process.

Q. Why is my yogurt moldy?

A. Mold is rare in yogurt making. Make sure all equipment, utensils, counters and other materials are clean. Do not culture near garbage cans or compost bins. Use the freshest milk. Make sure to store direct-set cultures in the freezer to keep them fresh and reculture heirloom cultures at least every 7 days. If mold appears, discard everything and begin fresh with a new starter.

YOGURT RECIPES

Beverages

Chai Piimä

Mix the fragrant, spicy taste of chai with delicious creamy piima, and you've made a wonderful new drink!

Ingredients

- ¾ cup piimä yogurt
- ¼ cup brewed chai tea
- Sweetener to taste

Instructions

1. Blend together and serve cold.

Sweet or Savory Lassi (Indian Yogurt Beverage)

Lassi is a simple beverage made from yogurt and water or ice, with sweet or savory ingredients added. Mango lassi is well-known and is simply the sweeter version of lassi combined with the mango fruit.

Lassi most likely originated from the need for a cooling, restorative beverage in the Indian heat. Adding a pinch of salt to your sweet or savory lassi will aid in keeping you hydrated.

Sweet Lassi

- 1 cup yogurt
- 1 cup ice water
- 3 tablespoons sugar
- Fruit puree, jam, herbs, or extracts for flavorings

Savory Lassi

- 1 cup yogurt
- 1 cup ice water
- Salt to taste
- Flavorings such as minced chili, cilantro, mint, or cumin.

Instructions

Combine yogurt and remaining ingredients in a quart jar. Shake well for 1 to 2 minutes, until beverage is frothy and cold. Serve immediately.

Basic Fruit Smoothie Recipe

Use this versatile smoothie recipe with any fruit, during any season. Add in a spoon of nut butter, for a more dense texture and flavor.

Ingredients

- 1 cup yogurt, kefir, or buttermilk
- ½ cup frozen fruit (berries work well)
- ½ banana
- Ice cubes (omit if banana is frozen)

Instructions

1. Add all ingredients to a blender and process until smooth.
2. Serve chilled or at room temperature. Makes one serving.

Tropical Smoothie

This smoothie tastes truly tropical when made with coconut milk kefir or coconut milk yogurt.

Ingredients

- 1 frozen banana
- 1 cup fresh pineapple
- 2 tablespoons coconut milk (optional)
- ¾ cup yogurt, kefir, or buttermilk
- 1 tablespoon raw honey, maple syrup, or a small amount of stevia

Instructions

1. Add all ingredients to a blender and process until smooth.
2. Serve chilled. Makes two servings.

Breakfast

Simple Soaked Whole Wheat Hotcakes

This simple whole-grain hotcake recipe tastes great for breakfast on a chilly morning, or for dinner when you don't have much time. Soak the flour ahead of time and whip up a quick, delicious, filling meal.

Ingredients

- 2 cups whole wheat flour
- 2 cups cultured buttermilk, yogurt, or kefir
- 2 teaspoons baking powder
- 1 teaspoon sea salt
- 2 eggs
- 2 tablespoons olive oil

Instructions

1. In a large bowl, combine the whole wheat flour and cultured buttermilk; soak, covered, in a warm place overnight. A soaking time of 24 hours yields fluffier pancakes.
2. After soaking the wheat, add baking powder, sea salt, eggs, and olive oil. Mix until well-combined but do not overmix.
3. Cook on a hot, oiled cast-iron skillet or griddle until pancake is puffed and browned.
4. Makes 12-14 pancakes.

Grain-free Peanut Butter Pancakes with Yogurt GF

Many pancake recipes contain a choice of buttermilk, kefir, or yogurt. The acid in these cultured dairy products creates a lovely flavor, but, more importantly, it reacts with the baking soda to create leavening.

In this recipe, yogurt is used for just such a purpose. Kefir and buttermilk would also work, but the viscosity of full-fat yogurt moistens and adds heft to the fiber-heavy coconut flour.

Ingredients

- ½ cup coconut flour
- ¼ teaspoon salt
- ¾ teaspoon baking soda
- 4 eggs, room temperature
- 1½ teaspoons vanilla extract
- ⅓ cup milk, room temperature
- ⅓ cup yogurt, room temperature
- ⅓ cup natural peanut butter, stirred well
- Coconut oil, lard, or butter for frying

Instructions

1. In a small bowl, combine coconut flour, salt, and baking soda with a whisk. Set aside.

2. In a medium-size bowl, beat eggs until light and frothy. Add the remaining liquid ingredients and peanut butter; mix with a whisk until completely combined.
3. Add the dry ingredients to the wet and fold together until just combined. Let batter sit for several minutes while heating a skillet over medium-low heat.
4. Add 2-3 tablespoons of batter to the pan to make 2- to 3-inch pancakes. Spread the batter out with the back of a spoon if necessary. Cook pancakes for 3-5 minutes on the first side, or until the batter looks set around the edges.
5. Flip very carefully when the cakes appear ready and cook for several more minutes. Repeat with remaining batter.

Oatmeal Yogurt Muffins

This basic muffin recipe makes a filling and healthy muffin for breakfast or snack. Use different dried fruit and nuts for a new muffin flavor each week.

Ingredients

- 1 cup rolled oats
- 1 cup white flour or whole wheat pastry flour (or combination)
- 1 cup yogurt
- 1 egg
- ¼ cup honey
- ½ teaspoon salt
- 1 teaspoon baking soda
- ⅓ cup melted butter, ghee or coconut oil
- ¼ cup dried cranberries (optional)
- ¼ cup chopped pecans (optional)

Instructions

1. Prior to baking, combine the oats, flour, and yogurt. Cover the bowl and soak for 12 hours.
2. Preheat the oven to 425°F.

3. Add remaining ingredients and stir to combine. Do not over mix.
4. Fill muffin tins ⅔ full.
5. Bake 15-20 minutes, until muffins are set and lightly browned.

Makes 12 muffins.

Apple Spice Yogurt Bread

Adding sweet spices and apples to a basic bread transforms it into a treat for brunch or even dessert.

Ingredients

- 4 cups white flour, whole wheat flour, or combination
- 2 cups oats
- 2¼ cups yogurt (plus additional if needed)
- 1 cup brown sugar
- 2 teaspoons baking powder
- 1 teaspoon baking soda
- 1 teaspoon sea salt
- 1 teaspoon cinnamon
- ½ teaspoon nutmeg
- 3 eggs, beaten
- ¼ cup melted butter, ghee, or coconut oil
- 2 teaspoons vanilla
- 6 large apples, peeled, cored, and diced
- ½ cup pecans or walnuts, chopped

Instructions

1. Prior to baking, combine flour, oats, and yogurt. Cover the bowl and soak grains for 12 hours or overnight.
2. Preheat the oven to 375°F.
3. Grease two 9x5-inch loaf pans.
4. Add remaining ingredients except apples and nuts to the flour mixture, and stir to combine. Do not over-mix.
5. Add more yogurt to make it more like a batter than like a stiff dough, if necessary.
6. Gently fold in apples and nuts.
7. Pour batter into pans. Bake 1 hour or until a wooden toothpick comes out clean.

Apple Squash Soufflé with Coconut Yogurt GF

This soufflè is a lovely way to incorporate the warm and spicy flavors of fall into a filling breakfast or even a dessert. It's light and fluffy, and is good either warm or cold.

Ingredients

- 1 large apple, cored and cut into bite-sized pieces
- 2½ cups baked winter squash
- 12 eggs
- 2 cups coconut yogurt
- ½ cup honey
- 2 teaspoons vanilla
- 2 teaspoons cinnamon
- ½ teaspoon pumpkin pie spice
- ¼ teaspoon salt
- ½ cup shredded coconut

Instructions

1. Preheat oven to 425°F

2. Grease two 8x8-inch pans. Divide apple chunks evenly and spread in the bottom of each pan.
3. In a large bowl, mash baked squash with a fork.
4. Stir in eggs and all other ingredients except shredded coconut. Mix well.
5. Pour mixture over apple pieces. Sprinkle shredded coconut on top.
6. Bake 40 minutes or until set.

Condiments

How to Make Labneh (Yogurt Cheese)

Yogurt has been an essential ingredient in Middle Eastern diets for centuries. It is often strained for use in cooking or to make this spreadable cheese. Labneh is similar to cream cheese and can be flavored and spread on crackers or used as a vegetable dip.

Ingredients and Supplies

- Yogurt
- Cotton cheese bag, butter muslin, Greek Yogurt Maker, or tight-weave dish towel

Instructions

1. Pour yogurt into the strainer. Hang above a bowl or jar and drain whey for 2-12 hours, until desired thickness is reached.
2. Once the draining process is complete, add herbs and seasoning to taste.
3. Refrigerate for 2 or more hours prior to eating to allow the flavor of the herbs and seasoning to fully develop.

Flavoring Ideas

Walnuts and Raisins: For every ¼ cup of labneh, add 1-2 tablespoons walnuts, 1-2 tablespoons dried fruit such as cranberries or raisins, and ½-1 teaspoon honey, maple syrup, or fruit jelly.

Basil, Hazelnut, and Sun-dried Tomatoes: Add a small handful each of toasted finely chopped hazelnuts, finely chopped basil, and finely chopped sun-dried tomatoes.

Spicy Chili and Olives: For every ¼ cup of labneh, add 3-4 chopped fresh green chilies and 3-4 chopped green olives. Add a bit of lemon juice if desired, for a thinner consistency.

Fruit: Add canned fruit, jam, jellies, or preserves. Add a bit of honey, if desired, for added sweetness.

Vegetable: For every 2 cups of labneh add 2 tablespoons each minced scallions, minced carrot, and minced celery, and 2 minced radishes. Mix in ¼ teaspoon salt and ⅛ teaspoon pepper.

Tzatziki Sauce with Dill

Tzatziki is a creamy sauce served as an appetizer with vegetables and other sauces or drizzled over grilled meat.

Ingredients

- 1 cup yogurt, strained for 2-4 hours
- 1 cucumber
- 4 teaspoons olive oil
- 2-3 tablespoons fresh lemon juice
- 2 garlic cloves, peeled
- 1 tablespoon fresh or 1½ teaspoon dried dill
- Salt and pepper to taste

Instructions

1. Peel the cucumber and remove the seeds and soft portion.
2. Use a food processor to puree the ingredients and mix well.
3. Transfer to a serving dish, cover and chill for several hours prior to serving.

Yogurt-Dill Sauce for Salmon

This smooth, rich sauce transforms a plain piece of poached fish into a gourmet delight.

Ingredients

- 1 cup plain full-fat yogurt
- 1 tablespoon fresh lemon juice
- 3 egg yolks
- ½ teaspoon salt
- A few grinds of black pepper
- 1 teaspoon Dijon mustard
- 1 tablespoon chopped fresh dill

Instructions

1. Mix yogurt, lemon juice, egg yolks, salt, pepper, and mustard in the top of a double boiler.
2. Whisk together and heat over simmering water, stirring constantly, until mixture thickens, about 10 to 15 minutes.
3. Remove from heat, stir in dill, and cool slightly before serving over poached salmon.

Honey Yogurt Salad Dressing

This dressing is not only good for green salads, but great to pour over cold pasta or stir into a zesty potato salad for a unique, cultured flavor.

Ingredients

- 1 cup yogurt
- 2 tablespoons warm honey
- 2 tablespoons apple cider vinegar
- 1 tablespoon lemon juice
- Freshly ground black pepper and salt to taste

Instructions

1. Shake together the yogurt, honey, and vinegar in a pint jar.
2. Add the lemon juice and shake vigorously.
3. Add salt and pepper to taste.
4. Chill 1-2 hours before serving. Shake well before use.

Greek Yogurt Dressing with Blue Cheese

This quick and easy dressing can be made ahead and poured icy cold over summer salads.

Ingredients

- 1 cup Greek-style yogurt
- 4 tablespoons crumbled blue cheese
- 2 tablespoons apple cider vinegar
- Juice of ½ small lemon
- 2 cloves garlic, minced finely
- ⅛ teaspoon black pepper
- Sea salt

Instructions

1. In a small bowl, combine all ingredients, adding salt to taste. If the dressing is too thick, adding a little milk or milk kefir will help make it thinner.
2. Pour the dressing into a clean jar, screw the lid on, and shake really well.
3. Chill at least 3 hours before serving.

Dessert

Greek-style Frozen Yogurt

This rich and creamy frozen yogurt recipe with its hint of lemon and mint is a real treat on a hot summer afternoon. Our Greek Yogurt Starter lends the recipe that traditional tang, but any yogurt variety may be drained and used in this recipe.

Ingredients

- 3 cups Greek-Style yogurt, strained for 2-4 hours
- 1 tablespoon fresh lemon juice
- ⅓ cup raw honey
- Chopped mint leaves to taste

Instructions

1. Thoroughly mix the yogurt, lemon juice, and honey. Pour the mixture into an ice cream maker and follow the manufacturer's instructions.
2. Top with the mint leaves prior to serving.

Frozen Strawberry Yogurt Cheese

A delicious frozen dessert made with yogurt cheese (labneh) instead of plain yogurt, this cultured treat will make your sweet tooth smile.

Ingredients

- 2 cups yogurt cheese (labneh)
- ½ cup sugar
- 1 tablespoon vanilla extract
- 4 egg whites
- 1 cup thinly sliced strawberries

Instructions

1. Stir together the cheese, sugar and vanilla in a large glass bowl.
2. In a medium bowl, beat egg whites with a whisk until stiff peaks form. Fold egg whites into cheese mixture, using a wooden spoon to gently blend.
3. Fold in strawberries.
4. Cover bowl with a lid or plastic wrap and refrigerate for 6-10 hours, or overnight.
5. Pour mixture into a crank freezer or electric ice-cream maker and follow manufacturer's instructions.
6. If you do not have an ice cream maker, improvise using this method:

7. Fill a quart-sized plastic bag two-thirds full with the strawberry mixture; zip closed.
8. Place inside a gallon-size plastic bag. Hold the mouths of the bags flush and fill outer bag with crushed ice and rock salt, in layers.
9. Zip the outer bag closed and begin to massage and shake the bags to achieve the same effect as from a classic ice cream freezer.
10. Keep checking the inner bag to see if the ice cream has frozen sufficiently.

Makes 6 servings.

Fluffy Fruit Cobbler

One of the joys of summer is eating wholesome fresh fruit, and how better to enjoy it than with a nice fluffy pastry topping and a dollop of cultured cream on top?

This recipe works with any type of fruit or berry, or even canned fruit during the winter. By using a little cultured milk in the crust and topping it with another cultured dairy product, you have a double dose of probiotic goodness!

Ingredients

- 6 cups of fruit, enough to fill a 9x12-inch baking pan about halfway. Use any combination of fresh, frozen, or preserved fruit:
- berries
- apples
- peaches
- nectarines
- 2 cups all-purpose flour (or gluten-free almond blend flour or blanched almond meal)
- 1½ teaspoons double-acting baking powder
- 1 teaspoon salt
- 1 tablespoon sugar or 1 packet stevia powder
- ¼ cup butter

- 1 cup yogurt, milk kefir or buttermilk
- cinnamon

Instructions

1. Preheat oven to 450°F
2. Wash and cut up fruit. If frozen, thaw and drain. If preserved, drain.
3. Mix all dry ingredients together.
4. Cut the butter into chunks and add to flour. Mix in with a pastry cutter or a fork, until the mixture is uniformly crumbly.
5. Add yogurt; stir into the mixture with a fork until completely moist. Dough should be soft and loose. Add more yogurt if necessary.
6. Spoon dough on top of fruit mixture, spread gently to cover the fruit. Sprinkle with a little cinnamon.
7. Bake 20 minutes or until the dough is lightly browned.

Raw and Cultured Pumpkin Cheesecake

This common fall dessert adapts easily to using cultured foods. And because of the healthy fats in the recipe, the sweetener is kept to a minimum. With a hint of pumpkin and a dash of warming fall spices, this is sure to be a hit at your Thanksgiving table.

Crust

- 1 cup graham cracker crumbs
- 4 tablespoons unsalted butter, melted and cooled slightly
- ¼ teaspoon ground ginger

Filling

- 1 cup pumpkin purée
- 4 tablespoons cultured butter, softened
- 16 ounces cultured cream cheese (or well-drained kefir cheese)
- 1 teaspoon pure vanilla extract
- 1½ teaspoons pumpkin pie spice
- ¼ teaspoon salt
- ½ cup powdered Sucanat (granulated Sucanat that has been powdered in a blender)

Instructions

1. Preheat oven to 400°F. Line a 9-inch spring form pan with parchment paper or grease a 9-inch pie pan.
2. In a medium bowl, combine graham cracker crumbs, melted butter, and ginger. Press mixture into bottom of prepared pan and about ¼ inch up the sides. Bake 7-8 minutes or until golden brown. Set aside to cool.
3. In a medium bowl, beat pumpkin purée, butter, cream cheese, vanilla, spice, and salt until smooth. Mix in sugar, ¼ cup at a time, then beat until smooth.
4. Transfer pumpkin mixture to prepared pan, spreading evenly over the crust.
5. Cover and chill until set, 6 hours or overnight.
6. Remove outer ring of pan and peel off parchment paper. Cut into slices and serve.

Shrikhand

This Middle-Eastern dessert is as simple as can be. Its sweet-tart flavor is wonderful when paired with a crisp cookie or fried dough. The end result is supposed to be just a bit tart, but add a bit more honey if desired.

The only time-intensive part of this recipe is the overnight straining of the yogurt, so do plan ahead for that. Shrikhand makes a fresh addition to pancakes, cookies, or other dense baked goods.

Ingredients

- 6 cups whole milk yogurt
- 1/4 cup honey
- Pinch of cardamom
- Pinch of nutmeg
- 2 tablespoons raisins
- 2 tablespoons chopped nuts (pistachios, almonds, or walnuts)

Instructions

1. Strain plain yogurt overnight.
2. Once straining is complete, whisk in honey and spices. Fold in raisins and nuts.
3. Cover and transfer to refrigerator for at least 1 hour before serving.

Salad

Tomato Raita with Greek Yogurt

Raita is a kind of East Indian salad that pairs well with curries or any spicy dish. It is traditionally made with only cucumbers, but this version adds a lot of versatility. It can also be eaten alone or served over meats and vegetables. Try some over scrambled eggs for a probiotic-rich breakfast treat.

Ingredients

- 1 large cucumber, peeled, seeded, and diced
- 1 cup Greek yogurt
- 2 medium Roma tomatoes
- ¼ cup finely chopped onion
- ¼ cup chopped flat leaf parsley
- ¼ cup finely chopped cilantro leaves
- 1 clove garlic, minced
- 1 teaspoon ground cumin
- ½ teaspoon Celtic sea salt
- Poppy seeds for topping if desired

Instructions

1. Taste the diced cucumber to see if it is at all bitter. If so, sprinkle it with 1 teaspoon of salt and set aside for 20 minutes to drain out some of the bitter juices. Rinse before using.
2. Yogurt should be thick. If necessary, drain whey to thicken.
3. Mix chopped tomato and cucumber together. Stir in chopped herbs and garlic; sprinkle in cumin and salt, then stir together until combined.
4. Fold in Greek yogurt and refrigerate until ready to serve.
5. Sprinkle with poppy seeds just before serving.

Cucumber Yogurt Salad

This is a perfect salad for a hot day, or a cooling side dish for a spicy meal.

Ingredients

- 3 cucumbers
- 1 teaspoon sea salt
- ¾ cup plain yogurt
- 2 cloves garlic
- 3 tablespoons apple cider vinegar

Instructions

1. Peel cucumbers and slice very thinly using a food processor or a mandoline slicer.
2. Place in a medium-size bowl and mix in salt. Cover and refrigerate for several hours.
3. Transfer chilled cucumber slices to a colander and drain for approximately 30 minutes. Either let them drain in the refrigerator, or refrigerate for at least 15 minutes after draining to re-chill.
4. Squeeze the cucumbers or pat with a towel to remove excess moisture.
5. Mix yogurt, garlic and vinegar.
6. Add cucumbers to yogurt mixture and stir gently to combine.

Serve cold.

Probiotic-rich Yogurt Potato Salad

Using yogurt instead of mayo, this recipe is a great one to make ahead for a delicious side or to serve with baked crackers and sliced fruit for a cool, easy lunch.

Ingredients

- 1 pound new potatoes, peeled
- 2 tablespoons apple cider vinegar
- 8 ounces fresh, plain yogurt
- 3 tablespoons chopped pecans
- ½ teaspoon prepared mustard
- ¼ teaspoon celery salt
- 3 drops hot pepper sauce
- 3 large boiled eggs, cooled, and chopped
- ½ pound cherry tomatoes, halved

Instructions

1. Chop potatoes into 1-inch pieces. In medium-sized pot, boil the potatoes in salted water until just tender. Drain into a clean colander.
2. Sprinkle drained potatoes with vinegar; cool at room temperature.

3. In a medium bowl, combine the yogurt, pecans, mustard, celery salt, pepper sauce, and chopped eggs. Set aside.
4. Toss tomatoes with the vinegar potatoes; add to yogurt mixture. Stir and toss to blend.
5. Refrigerate for a few hours. Serve chilled.

Snack/Appetizer

Cultured Dairy Ranch Dip

When you make a dip, versus a dressing, you want something thick and rich. The obvious first choice for this might be sour cream. If you do not have enough sour cream, combine sour cream with yogurt or kefir. So long as the end result is fairly thick, any combination will work well.

Once you have decided on your cultured dairy base, try this fresh herbaceous dip, chock full of healthy ingredients like garlic, onion, and lemon juice.

Ingredients

- 2 cups cultured dairy (use one or more)
- sour cream
- yogurt
- milk kefir
- yogurt cheese
- kefir cheese
- 2 tablespoons finely minced parsley
- 1 garlic clove, minced finely
- 1 tablespoon finely minced onion

- juice of 1 lemon
- sea salt to taste
- ⅛ teaspoon black pepper

Instructions

1. Combine all ingredients in a small bowl. Place in refrigerator to set for 30 minutes before serving.

Warm Blue Cheese Dip

This warm dip is amazing with natural baked corn chips or still-sizzling, coarsely-salted sunchoke or potato chips. You can also spice this recipe up by adding freshly chopped basil or rosemary. It is a great appetizer idea and can be made with sour cream instead of yogurt, for a sharper cultured taste and a richer flavor.

Ingredients

- 1 cup plain Greek-style yogurt
- 5 tablespoons crumbled blue cheese
- 1 teaspoon black pepper
- 2 chives, chopped finely

Instructions

1. Warm yogurt in a small pan over low heat.
2. Add blue cheese and stir gently, keeping the mixture moving to prevent scorching. Keep the heat low while warming.
3. Cook for about 10 minutes, stirring and watching carefully for scorching.
4. Add pepper and turn off heat.
5. Garnish with chives and serve immediately.

Nori Poppers

This snack recipe is a delightful fusion of western and eastern flavors, easy to make and even easier to eat!

Ingredients

- 2-4 tablespoons cream cheese
- 1-3 teaspoons yogurt or sour cream
- 1-2 pickled jalapeño peppers
- 1 sushi nori sheet (seaweed wrappers)
- Bamboo sushi roller (optional)

Instructions

1. Add a little yogurt or sour cream to the cream cheese; mix well to make the cream cheese spreadable.
2. Slice the jalapeños into thin strips.
3. Spread a ¼-inch thick layer of cream cheese mix on a nori wrapper, leaving about ½ inch of the wrapper free of spread on one end.
4. Along the center of the roll, and parallel to the un-dressed end, make a line of jalapeño strips.

5. Make another line of jalapeño strips halfway between the first strip and the end of the nori wrapper opposite the un-dressed end.
6. Starting at the end with cream cheese spread, roll up the nori fairly tightly, making sure to keep the jalapeño strips from sliding around. Use a sushi roller for this, or just do it by hand.
7. Run a wet finger along the un-dressed end of the nori to close up the roll.
8. Cut the roll into ½-inch sections and serve as bite-size snacks.

Sage Cream Cheese with Yogurt

Sage, an often undervalued herb, is native to the Mediterranean region. In ancient Rome, it was known to have healing properties, and was included as a part of the official Roman pharmacopeia.

This recipe makes a pleasantly flavored cheese that is delightful spread on baguette slices. It can also be used as a base for a pasta sauce by adding a little milk. Bake the leftovers into sourdough biscuits.

Ingredients

- ½ cup fresh sage, chopped roughly
- 1 large clove garlic
- 16 ounces cream cheese, softened
- 3 tablespoons lemon juice
- 3-4 tablespoons yogurt

Instructions

1. Combine sage and garlic in a food processor. Pulse until finely chopped.
2. Blend together cream cheese and lemon juice in a small bowl. Stir in garlic and sage.

3. Mix in yogurt to desired consistency.
4. Cover and refrigerate for at least one day before serving, for best flavor. Remove 15-30 minutes before serving.

Soup

Fermented Gazpacho

Gazpacho is a "liquid salad" that combines the thirst-quenching virtues of a cold drink with the nourishment of a salad. Probably originating in Andalusia, Spain, it is a chilled, tomato-based raw vegetable soup with ancient roots. Many gazpacho recipes include stale bread or watermelon; this recipe is an adaptation that is fermented with salt and whey.

Gazpacho is a perfect way to make a nourishing meal and still keep your kitchen cool in the summer months, and is a great use for the many vine-ripened tomatoes that may be coming out of your garden or farmers' market. It is quick and easy to assemble ahead of time in quantities suitable for a crowd. To make it a complete meal, serve it topped with chopped hard-boiled egg and ham.

Ingredients

- 1 cucumber, peeled, seeded, and diced
- 4 tomatoes, seeded and diced
- 2 bell peppers, diced
- 1 small red onion, minced
- 3 cloves garlic, minced

- 1/2 to 1 cup fresh herbs such as cilantro, basil, parsley, or chives, minced
- 24 ounces vegetable juice (preferably organic)
- 2 tablespoons balsamic vinegar
- 2 tablespoons red wine vinegar
- 1/4 cup olive oil
- Juice of one lime (optional)
- Hot sauce to taste (optional)
- Pinch of chipotle powder (optional)
- Whey reserved from cultured dairy projects
- Sea salt

Instructions

1. Mix vegetables, liquids (except whey), and seasonings (except salt) together in a large bowl. For a smoother gazpacho, puree part or all of the mixture in the food processor.
2. Place the gazpacho mixture in quart jars and add 4 tablespoons whey and 1 tablespoon salt to each quart.
3. Allow mixture to sit for 2 days at room temperature, then transfer to cold storage.

Serve with a dollop of tzatziki , chopped avocados, or the traditional topping of egg and ham.

Serves 4 to 6.

Quick and Creamy Tomato-Basil Soup

Put this simple, delicious soup together in a flash with ingredients you probably always have in your pantry. The addition of homemade cream cheese makes it extra special and creamy, but you can use any good cream cheese or even yogurt cheese. Serve with some sourdough crackers for a warm and satisfying lunch.

Ingredients

- 1 tablespoon butter
- 1 small clove garlic, minced or pressed
- 2 (6-ounce) cans or jars of tomato paste
- 1 quart organic vegetable broth
- 2 teaspoons dried basil, crushed
- 1 teaspoon salt
- 8 ounces cream cheese or yogurt cheese
- 1 tablespoon sugar or a few drops pure stevia extract

Instructions

1. In a medium-size saucepan, melt butter over medium heat.
2. Add garlic and cook, stirring constantly, just until garlic starts to brown. Do not let the garlic get brown or it takes on an undesirable flavor. Remove pan from heat.

3. Stir in tomato paste, vegetable broth, garlic, basil, and salt; return pan to heat.
4. Cook over medium heat until mixture starts to boil, then reduce heat, cover, and simmer 10 to 15 minutes.
5. Stir in cream cheese. Use an immersion blender if you want a very smooth consistency. Add sugar to taste.
6. Keep warm over very low heat until ready to serve.

Makes 4 servings.

Cold Cucumber Dill Yogurt Soup

This refreshing soup is wonderful on a hot summer afternoon and pairs well with thick ham sandwiches.

Ingredients

- 2 large cucumbers
- 1½ cups plain, fresh Greek-style yogurt
- Juice of 1 large lemon
- 1 small green onion, chopped
- 1 garlic clove
- ⅓ cup loosely packed fresh dill
- ¼ cup loosely packed flat-leaf parsley
- 2 tablespoons loosely packed tarragon leaves
- ¼ cup olive oil, plus more for drizzling
- Sea salt and white pepper
- ½ red onion, finely chopped

Directions

1. Finely dice ½ cup of the cucumber, and cover tightly. Store in the refrigerator to use for garnish later. Coarsely chop the remaining cucumber.
2. Blend together the chopped cucumber, yogurt, lemon juice, green onion, garlic, dill, parsley, and tarragon and a scant ¼ cup olive oil until smooth.
3. Season with salt and pepper to taste.
4. Transfer to a tightly-closed container and refrigerate the soup for 8-10 hours, or overnight.
5. Just before serving, taste and season the soup again. Pour into chilled bowls and garnish with the diced cucumber, red onion, and a drizzle of olive oil before serving.