Yogurt is a cultured dairy product that can be made from whole, lowfat or skim milk, including reconstituted nonfat dry milk powder. Although most yogurt in the United States is made from cow's milk, any type of milk can be used. In other countries, yogurt is made from the milk of water buffalo, yak, goat, horses and sheep. As interest in raising goats increases in the United States, so does the popularity of making yogurt from goat's milk.

If you like yogurt and eat it often, you may enjoy preparing yogurt at home. Depending on the form of milk used, you will probably save money, as well. The guidelines and procedures in this guide will help you make a quality product.

**Equipment needed**

With the exception of a commercial yogurt maker with an electrically heated base, most of the equipment needed to prepare yogurt can be found in any kitchen. Make sure you have all the necessary equipment before you begin preparing yogurt:

- Double boiler that holds at least 5 cups.
- Candy thermometer with a range of 100 degrees Fahrenheit to 300 degrees Fahrenheit.
- Container for yogurt that holds at least 5 cups (glass, crockery, food-grade plastic or stainless steel), or use individual custard cups or jelly jars — then the yogurt can be eaten directly from the container in which it was made.
- Other useful equipment: large spoon, large bowl, and aluminum foil or plastic wrap to cover yogurt containers if they don't have lids.
- Incubator to maintain a constant temperature of 108 degrees Fahrenheit to 112 degrees Fahrenheit when incubating yogurt. The most foolproof method for incubating yogurt is in a commercial yogurt-maker with an electrically heated base. If you don't want to purchase a yogurt maker, experiment with the other methods of incubation described in Table 1 until you find one that fits your need.

**Table 1**

<table>
<thead>
<tr>
<th>Incubators</th>
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<tbody>
<tr>
<td><strong>Method A</strong></td>
</tr>
<tr>
<td>Prewarm oven to 200 degrees Fahrenheit and turn off. Use an oven thermometer to monitor temperature — do not let it drop below 100 degrees Fahrenheit. Turn oven on for short periods during incubation to maintain a temperature of 108 degrees Fahrenheit to 112 degrees Fahrenheit.</td>
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<tr>
<td><strong>Method B</strong></td>
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<tr>
<td>Line an ice chest (picnic cooler) with aluminum foil. Place four, one-quart jars filled with hot water (about 140 degrees Fahrenheit) inside the ice chest with the yogurt container(s) and cover ice chest with a tight-fitting lid. Allow space between jars and container(s) of yogurt.</td>
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<tr>
<td><strong>Method C</strong></td>
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<tr>
<td>Nestle several cardboard boxes inside each other, placing crushed newspapers between each box. Continue as directed in Method B for ice chest.</td>
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<tr>
<td><strong>Method D</strong></td>
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<tr>
<td>A simple way to incubate a small amount of yogurt is to pour the yogurt mixture into a wide-mouth thermos and cover with a tight lid. When the yogurt is ready, loosen the thermos lid before storing it in the refrigerator so the</td>
</tr>
</tbody>
</table>
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Method E
Set filled container(s) of yogurt on a towel-covered heating pad set on medium heat in a sheltered corner on a kitchen counter. Cover the jars with several towels.

Before you begin

Thoroughly wash equipment for making yogurt and container(s) with hot, soapy water. Rinse everything thoroughly and air dry. A dishwasher can also be used. Pour boiling water into the yogurt container(s) and leave until ready to use. Prepare the incubator following manufacturer's instructions (Table 1).

Recipe for plain yogurt

This recipe makes 4 to 5 cups. Yogurt can be stored in the refrigerator for about 10 days. This recipe can be doubled or tripled with no loss of quality, but make sure you can use that amount in 10 days or less. Adjust pan and container size accordingly.

- 1 quart milk (whole, lowfat, skim or reconstituted nonfat dry milk) Note: If you use home-produced milk, either from a cow or goat, it must be pasteurized (Table 2) before preparing yogurt or any other milk product.
- Nonfat dry milk powder — use 1/3 cup powder when using whole or lowfat milk, or use 2/3 cup powder when using skim or reconstituted nonfat dry milk
- 1/4 cup commercial, unflavored, cultured yogurt*
- 2 to 4 tablespoons sugar or honey (optional)
- 1/2 package (1 teaspoon) unflavored gelatin (for thick, firm yogurt only)

* Special hint
To make yogurt at home, an active (living) yogurt culture is needed as a "starter." Commercial, unflavored cultured yogurt, from the supermarket is usually used as a starter. Yogurt starter cultures can also be purchased at health food stores, but are quite expensive compared to commercial cultured yogurt. Once you start making yogurt at home, save some of your homemade yogurt to "start" your next batch. For best results, however, purchase commercial cultured yogurt to replenish a homemade culture every four to five batches.

For thin yogurt

- Place cold, pasteurized milk in top of a double boiler and stir in nonfat dry milk powder. Add sugar or honey if a sweeter, less tart yogurt is desired.
- Heat milk to 200 degrees Fahrenheit, stirring gently and hold for 10 minutes. Do not boil.
- Place top of double boiler in cold water to cool milk rapidly to 112 degrees Fahrenheit to 115 degrees Fahrenheit. Watch the temperature carefully as it falls rapidly once it reaches 125 degrees Fahrenheit. Remove pan from cold water.
- Remove one cup of the warm milk and blend it with the yogurt starter culture. Add this to the rest of the warm milk. Temperature should now be 110 degrees Fahrenheit to 112 degrees Fahrenheit.
- Pour immediately into the clean hot container(s), cover and place in prepared incubator. Close incubator.
- Incubate about 4 hours. Yogurt should be set. The longer the incubation time, the more tart or acidic the flavor.
- Refrigerate immediately. Rapid cooling stops the development of acid. Yogurt will keep for about 10 days if held at 40 degrees Fahrenheit or lower (normal refrigerator temperature).

For thick, firm yogurt

- Place cold, pasteurized milk in the top of a double boiler and stir in nonfat dry milk powder. Stir in sugar or honey if sweeter, less tart yogurt is desired. Sprinkle gelatin over the milk. Let stand for 5 minutes to soften gelatin.
- Heat milk to 200 degrees Fahrenheit and hold for 20 to 30 minutes, stirring gently to dissolve gelatin. Continue cooling.

yogurt can cool rapidly.
from Step 3 under thin yogurt.

Calories in one-cup (8 ounces) serving

- **Plain, made from whole milk**
  139 calories
- **Plain, made from lowfat milk**
  144\(^1\) calories
- **Plain, made from skim milk**
  127 calories
- **Vanilla- or coffee-flavored, made from lowfat milk**
  194\(^2\) calories
- **Fruit-flavored made from lowfat milk**
  225 to 231\(^1\) calories

\(^1\)Calories vary with the amount of nonfat dry milk added to yogurt.
\(^2\)With sweetener added.

Table 2
Home pasteurization of milk in a double boiler

- Heat water in the bottom section of a double boiler.
- Pour milk into the top section; cover it and heat to 165 degrees Fahrenheit stirring occasionally for uniform heating.
- As soon as milk reaches 165 degrees Fahrenheit, cool it immediately by setting the top section of the double boiler in ice water or cold running water.
- Store milk in the refrigerator in clean containers.

Making yogurt in a microwave oven

Microwave ovens can be used both to heat milk for yogurt making and to incubate the yogurt. Check manuals that come with individual microwave ovens for directions.

Caution
Microwave ovens should not be used to pasteurize milk because of their uneven heating pattern, which could result in the survival and growth of disease-producing microorganisms in the milk.

Serving suggestions for home-prepared yogurt

- Serve on baked potatoes, fruit or vegetables as a low calorie substitute for sour cream.
- For dip or salad dressing, add chopped onion, chives, curry powder, dried onion soup mix or other flavorings.
- To make fruit-flavored yogurt, stir sliced or crushed fruit into plain yogurt. Nuts or raisins can also be added. Add sweetener to taste if needed. Plain yogurt mixed with applesauce is a quick and delicious treat.
- Custard-flavored yogurt can be made by adding 1/2 teaspoon vanilla to 1 cup of yogurt. Sweeten to taste.
- Frozen yogurt on a stick: Add 2 tablespoons frozen fruit juice concentrate, or 1/2-cup sliced or crushed fruit to 2 cups plain yogurt. Freeze in Popsicle molds or cups with plastic spoons or wooden sticks for handles.
- Plain or fruit-flavored yogurt can be frozen in small containers and added to "brown bag" lunches to keep other items cold until lunchtime.

Peachy yogurt ice cream
- 1 cup whipping cream
- 1 cup plain or vanilla yogurt
- 3 cups sliced peaches, slightly thawed if frozen
- 1/3 cup honey

Whip cream until stiff and set aside.

Place peaches, yogurt and honey in a food processor or blender and process until smooth. Fold into the whipped cream, pour into ice cube trays and freeze.

When frozen solid, thaw slightly, then blend again in blender or food processor until smooth. Store in freezer containers. For best quality, use in several days.

Makes about 5 cups.

Variations
Substitute strawberries or pitted sweet cherries for the peaches.

**Chicken with yogurt sauce**

- 1 broiler-fryer, cut into pieces, with skin removed (about 3 pounds)
- 1 tablespoon vegetable oil
- 1/2 cup sliced onions (divide into 1/4 cup portions)
- 1 can (35 ounces) whole tomatoes, drained (2-1/2 cups)
- 3/4 cup buttermilk
- 1 teaspoon dried dill weed (or 1 tablespoon chopped fresh dill)
- 1/2 teaspoon sugar
- 1/2 teaspoon salt (optional)
- 1/8 to 1/4 teaspoon freshly ground pepper (to taste)
- dash pepper sauce (like tabasco)
- 1/2 cup plain low-fat yogurt
- 1/4 cup grated parmesan cheese
- 1/4 cup minced fresh parsley

Lightly brown the chicken pieces in oil in a large covered skillet. Add half the onions and cook for about 2 minutes. Remove from heat. In a blender or food processor, combine tomatoes, buttermilk, dill, sugar, salt, pepper and pepper sauce. Blend until smooth and pour over chicken. Return to heat and bring to a boil uncovered. Reduce heat, cover pan and simmer about 20 minutes or until tender. Remove from heat and stir in the yogurt and parmesan cheese. Heat until the sauce is very hot; do not boil. Serve garnished with remaining onions and parsley.

Makes 4 to 6 servings.

**Light microwave cheesecake**

Lighter than traditional cheesecake, but just as delectable.

- 1 9-inch graham cracker crust
- 1 carton part-skim ricotta cheese (15 ounces)
- 1 cup plain low-fat yogurt
- 3 egg whites
- 1/3 cup sugar
- 1 teaspoon vanilla
- 1/2 teaspoon almond extract
- 10 fresh strawberries (for topping)
In a medium bowl, combine all filling ingredients. Beat at high speed with a mixer until smooth. Microwave on high for 4 to 7 minutes or until very hot, stirring every 2 minutes with a whisk. Pour into prepared crust. Microwave at 50 percent (medium) for 7 to 15 minutes or until center is almost set, rotating dish one-quarter turn after every 3 minutes. Filling becomes firm as it chills. Chill for at least 6 hours. Garnish with fresh strawberries.

Makes 10 servings.

Note
Mention of brand names does not imply endorsement of specific products.

Table 3
Yogurt problem solver

Water separation of curds and whey

- Incubation time too long, allowing formation of too much acid.
  - Shorten incubation time and refrigerate yogurt as soon as it becomes firm.
- Insufficient heat treatment of milk.
  - Either milk was not heated to 200 degrees Fahrenheit or it was not held at 200 degrees Fahrenheit as directed for thin or firm yogurt. Heat treatment changes the milk proteins so that the yogurt is firmer and whey does not separate so easily from curds.

Yogurt does not become firm

- Inactive culture.
  - Commercial, unflavored yogurt used for starter must be fresh and contain live culture.
- Incubation temperature too high or too low.
  - Temperature must be between 108 degrees Fahrenheit to 112 degrees Fahrenheit for yogurt culture to grow properly. Temperatures above 115 degrees Fahrenheit cause separation or curdling and can destroy the active yogurt culture, while temperatures below 100 degrees Fahrenheit stop the growth.
- Interfering substances such as detergent.
  - Wash and thoroughly rinse all yogurt-making equipment and container(s) before making yogurt.

Off flavors

- Off-flavored milk.
  - Use fresh milk with a good flavor and fresh dry milk powder.
- Bacteria that cause off-flavors can grow along with the yogurt culture.
  - To prevent the presence of unwanted bacteria, use a fresh, active yogurt culture, thoroughly wash and rinse all yogurt-making equipment and container(s), hold container(s) in hot water while preparing yogurt and keep container covered during incubation.

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