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Sourdough

Sourdough, a yeasty starter for leavening hot cakes, waffles, muffins, bread and even cake, is also a word for an Alaska old-timer. For these early Alaskans, who lived alone or in small groups of three or four while mining, trapping or homesteading, sourdough became their staff of life. Bread could not be made without it, so the starter became a precious possession.

Food supplies came once or twice a year by ship. The food supplies were off-loaded to small boats, river steamers, dogsleds or backpacks to reach remote coastal or Interior Alaska destinations. Orders were placed a year in advance and foods were selected for keeping qualities as the arrival time often proved uncertain.

If yeast supplies ran out, replacements could be a long time in coming, especially if unseasonable ice formation and heavy wind or seas delayed the ships' entry into rivers or ports of call. Ordinary yeast plants, sensitive to the extreme cold, refused to grow well, while the combination of wild or adapted yeast in the sourdough starter proved as tough as its old-timer namesake. Or did the old-timer resemble and get his name from the indomitable sourdough starter? Choose whichever theory pleases you most.

Sourdough Starters

A good starter contains only flour, water and yeast. It has a clean sour odor. When it stands several days, the liquid will separate from the batter. This does not matter; just stir it in and feed it.

Starters can be made from any type of flour. However, the type of flour used will make a difference in flavor and how it works in recipes. The recipes in this publication use wheat flour.

Commercial sourdough starters are dried and powdered. Adding water brings it to life. In growing, the yeast gives off carbon dioxide gas, which forms bubbles in sourdough or any other yeast dough.

To start sourdough

You can make your own starter and sponge with this simple recipe:

2 cups flour
2 cups warm water
1 package dry yeast

In a quart-size bowl, dissolve yeast in ¼ cup warm water. Add the remaining water and flour and mix well. Place on a plate (to catch any overflow) and put in a warm place or cupboard for six to eight hours.

Set aside ½ cup of the bubbly starter (to store or feed and use again). The remaining 3½ cups of starter can be used for making pancakes, waffles, muffins, bread or cake immediately.

Sourdough can also be started by trying to capture wild yeast. This method is not discussed in this publication.

If you have a starter — set the sponge

To set the sponge, place the ½ cup of starter in a medium-size mixing bowl. Add equal parts flour and water to feed the yeast. For example, add two cups water and two cups flour. Beat well and set in a warm place, free from draft, to develop for six to eight hours. The sponge will have gained half again its bulk, will be covered with air bubbles and have a pleasant yeasty odor. The sponge can now be used in recipes for pancakes, muffins, bread or cake.

Storing the starter

Before using the active starter, place ½ cup in a scalded pint jar, cover and store in the refrigerator or a cool place for future use. Leave lots of room for expansion in the container, or put the lid on without tightening it.

Starter will keep well in a clean, covered glass container in the refrigerator. Use of metal containers or spoons is not recommended as the acid may react with the metal. After removing the starter from the refrigerator, let it come to room temperature before adding the flour and water.

Old-timers added enough flour to their starter to shape it into a ball and then put it in a sack of flour for easy carrying.

Drying the starter

Sourdough starter may be dried for easy storing or sharing. To dry, drop by teaspoonfuls on parchment paper. Turn frequently until completely dry. In Interior Alaska, drying takes about 24 hours. Store in a covered jar or airtight plastic bags.

To reconstitute dried starter

Crumble two or three circles of starter in ½ cup of warm water. Let stand overnight or until bubbly. Add ½ cup water and ½ cup flour. Stir. Let stand for a second night or until bubbly. Use to prepare the sponge as directed in recipes.

Sharing your starter

To increase your supply of starter, set the sponge as directed above. Six to eight hours later, instead of preparing a sourdough recipe, remove your portion of starter as usual, then place ½ cup portions of the starter in clean glass or pottery containers for sharing.

Using baking soda in sourdough recipes

Baking soda is added to react with the acids that result from the reaction of the yeast. This forms gas, which makes the batter lighter. If too much baking soda is added, the product may taste bitter and will be quite brown when baked. If too little baking soda is used, the product may be too sour in taste. Add the baking soda just before baking. In any sourdough recipe it is most helpful to reserve 1 tablespoon of the liquid to dissolve the baking soda. Add this to the batter last, mix thoroughly and bake. Baking soda added directly to the starter may kill the yeast.

Baking with sourdough

For all recipes, set the sponge six to eight hours before using by adding equal parts flour and water. When the starter is bubbly and active, save ½ cup for the next starter and use the remainder for your recipe. Stir the active sponge and measure the amount of sourdough for the recipe you are using. Flour amounts in the recipe may change depending on how thick or thin your sponge is.

Sourdough Hotcakes, Waffles & Muffins

Sourdough Hotcakes

Sourdough hotcakes differ from other hot cakes in that a sponge is leavened with the yeast from the sourdough starter and baking soda. **The sponge must be set the night before it is to be used.**

2 cups sponge (active sourdough)
1 teaspoon baking soda
1 tablespoon water
1 egg
½ teaspoon salt
1 tablespoon sugar
4 tablespoons nonfat dry milk powder (optional)

Dissolve baking soda in water. Beat sponge. Add egg, oil, salt and sugar to sponge and beat with a fork to blend in all ingredients. If you like, add nonfat dry milk powder (optional). Add baking soda-water mixture just before baking. Bake on a hot griddle. Turn once. Serve with hot brown sugar syrup or honey and melted butter. Molasses, jelly or rose hip syrup are other tasty toppings.

For interesting variations add ½ cup whole wheat flour, cornmeal, wheat germ or bran flakes to the batter. Add another egg to provide the liquid for this addition.

If you prefer a thin pancake, add another egg or a bit more water; for a thicker cake, the sponge should have more flour. At the time of baking, the batter for sourdough should be the same consistency as the batter for other hot cakes that are family favorites.

Sourdough Waffles

Use the basic hot cake recipe, but add 3 tablespoons of oil. Add the oil, then the baking soda-water mixture and bake at once, according to the directions that come with your waffle iron.

Sourdough Muffins

2 cups sponge (active sourdough)
1 teaspoon salt
¼ cup nonfat dry milk
1 cup flour
½ cup sugar
½ cup vegetable oil or melted butter
1 egg
1 teaspoon baking soda
1 tablespoon water
¾ cup raisins, blueberries or cranberries

Sift dry ingredients (salt, dry milk powder, flour and sugar) into a bowl. Make a well in the center, set aside. Mix egg and oil thoroughly with the sponge. Add this to the well in the flour. Stir only enough to moisten the flour. Dissolve baking soda in water. Add the baking soda water and raisins or berries to the batter just before filling the muffin tins. Fill greased muffin tins ¾ full. Bake in 375°F oven for 30 to 35 minutes. Makes 12 muffins.

Oatmeal Berry Muffins

In the evening, or six to eight hours before using, set the sponge. When the sponge is bubbly and active, save ½ cup for the next starter. To the remaining sponge add:

1½ cups flour
½ cup oatmeal
½ cup brown sugar
½ teaspoon salt
1 teaspoon baking soda
1 egg
½ cup milk (or 3 tablespoons dry milk + ½ cup water)
½ cup oil
2 teaspoons grated orange peel
¾ cup sponge (active sourdough)
½ cup blueberries or cranberries
muffin pan and pan spray

Grease muffin tins; set aside. Preheat oven to 375°F.

Sift dry ingredients into a bowl. Make a well in the center, set aside. Mix egg and oil thoroughly with the sponge. Add this to the well in the flour. Stir only enough to moisten the flour. Add the dried fruit to the batter. Fill the muffin tins ¾ full. Bake in preheated 375°F oven for 30 minutes. Makes 12 muffins.

Sourdough English Muffins

1 cup sponge (active sourdough)
¾ cup milk or buttermilk
2¾ cup flour
6 tablespoons cornmeal, divided
1 teaspoon baking soda
½ teaspoon salt

Mix together sourdough and milk. Combine flour, 4 tablespoons cornmeal, baking soda and salt. Add to sourdough mixture. Stir to combine well. Turn onto a lightly floured board and knead until smooth and elastic. Roll dough to ½ inch thick and cut with a 3-inch cutter. Sprinkle waxed paper with remaining cornmeal and place the muffins on the cornmeal. Sprinkle

with more cornmeal, cover and let rise about 45 minutes. Bake on a medium hot, lightly greased griddle for 20 to 30 minutes. Turn often. Cool. Split and toast. Serve with butter and blueberry jam. Makes 12 to 14 muffins.

Sourdough Bread

For all bread recipes, set the sponge and let stand in a warm place overnight or for six to eight hours. Save ½ cup sponge for next starter.

Sourdough Bread

2 cups sponge (active sourdough)
2 cups flour (or more)
2 tablespoons sugar
2 tablespoons vegetable oil
1 teaspoon salt
¼ teaspoon baking soda
1 tablespoon warm water

Sift dry ingredients (flour, sugar and salt) into a bowl; make a well in the center and set aside. Mix oil thoroughly with sponge. Add this to the well in the flour. Add enough flour to make a soft dough for kneading. Knead on a floured board for 10 to 15 minutes. Place in a greased bowl. Cover with a towel and let rise in a warm place for two to four hours or until doubled in size. Dissolve the baking soda in warm water and add to the dough. Knead it in thoroughly. Shape dough into loaves in bread pans and set aside to rise. When doubled, bake at 375°F for 50 to 60 minutes.

Casserole Bread

Use the same ingredients and methods as for Sourdough Bread. Instead of kneading the dough, beat it two minutes at medium speed setting of the mixer or 300 strokes by hand. Let stand in mixing bowl until double in bulk. Add ¼ teaspoon baking soda dissolved in 1 tablespoon warm water. Mix 30 seconds, turn into greased casserole or loaf pan and let stand 40 minutes. Bake as for Sourdough Bread. Bread is done when crust sounds hollow when tapped.

Sourdough Whole Wheat Bread

2 cups sponge (active sourdough)
2 cups whole wheat flour (or more)
2 tablespoons sugar
1½ teaspoons salt

Combine ingredients and mix well with a fork. This sponge will be sticky. Set in a warm cupboard for two hours or more. Turn out on a warm, well-floured board. Knead one or more cups of white flour into the dough for five to 10 minutes. Shape into a round loaf and place in a well-greased pie pan. Grease sides and top of loaf, cover with a towel and let rise one hour or until doubled. Bake in a preheated oven at 450°F for 10 minutes, then reduce heat to 375°F and bake 30 to 40 minutes longer. Makes one large loaf.

Sourdough French Bread

Prepare as for Sourdough Bread, but add 1 tablespoon yeast to the starter. Shape into two loaves by dividing the dough in half. Roll each half into a 15×12-inch rectangle. Wind up tightly toward you, beginning with the wide side. Seal edges by pinching together. Place rolls diagonally on greased baking sheets that have been lightly sprinkled with cornmeal. Let rise until doubled, about one hour. Brush with cold water. Cut with scissors or knife to make one or two lengthwise or several diagonal ¼-inch-deep slits across tops of loaves. Place baking sheets in a hot (400°F) oven with a pan of boiling water placed on a rack below the bread. Bake 15 minutes. Remove from the oven and brush again with water. Reduce the temperature to 350°F and bake 35 to 40 minutes until golden brown. Brush a third time with cold water and bake two to three minutes longer. Makes two French loaves.

Note: The addition of the commercial dry yeast helps give a lighter, airier texture to the bread.

Scandinavian Sourdough Rye Bread

2 tablespoons yeast
1½ cups warm water
1 cup sponge (active sourdough)
3 cups rye flour
½ cup molasses
2 tablespoons grated orange peel
¼ cup oil
1 teaspoon crushed fennel or caraway seed (optional)
1 tablespoon salt
2 cups flour
Additional flour, as needed

Dissolve yeast in water. Add sourdough, rye flour and molasses. Beat well, about three minutes. Cover and let rise in a warm place until about double in bulk.

Combine sourdough/rye mixture with remaining ingredients using 2 cups flour. Turn out on a floured board and knead well, adding additional flour to make a smooth, satiny dough. Shape round or oval loaves. Cover and let rise. Slash and bake in preheated 375°F oven for 35 to 40 minutes or until loaves sound hollow when rapped. Cool on wire racks.

Sourdough Pizza Crust

2 cups sponge (active sourdough)
¼ cup olive oil
½ teaspoon salt
½ teaspoon baking soda
2 cups flour, divided

Add, oil, salt and baking soda to sourdough and mix well. Add 1 cup flour and mix well. Add an additional cup of flour or enough to make a soft satiny dough. Knead well. Let dough rest about 15 minutes then roll out into rounds. Let rise again while preparing toppings. Bake in a preheated 425°F oven on the bottom rack for 20 to 25 minutes.

Biscuits, Tortillas & Crackers

Sourdough Biscuits

1½ cups sponge (active sourdough)
⅓ cup vegetable oil
½ teaspoon salt
1 tablespoon sugar
½ teaspoon baking soda dissolved in 1 tablespoon warm water
1½ cups flour
1 teaspoon baking powder

In the evening, or six to eight hours before using, set the sponge. When the sponge is bubbly and active, save ½ cup for the next starter.

Stir oil, salt, sugar and baking soda dissolved in water into sourdough until combined. Add flour and baking powder, stirring to form a soft dough. Turn out on a floured board and knead lightly eight to ten times. Roll or pat out ½ inch thick. Cut into rounds and place on a greased baking sheet. Bake at 425°F for 15 to 20 minutes.

Sourdough Tortillas

⅔ cup sponge (active sourdough)
3 cups flour
1 teaspoon salt
2 tablespoons vegetable oil
⅔ cup very hot water

Combine all ingredients until a soft dough forms. If the dough is too sticky, add a bit more oil. Knead well. Divide into eight pieces and roll into thin circles. Cook tortillas on a hot griddle until they bubble and dark spots appear on the underside. Turn and cook on the opposite side until done.

Sourdough Sesame Crackers

½ cup sponge (active sourdough)
2 tablespoons vegetable oil
1 teaspoon salt
1 cup whole wheat flour
¼ cup sesame seeds (preferably unhulled)

Preheat oven to 400° F.

To the frothy sourdough starter, add the oil, salt and as much of the flour as you can work in. Turn it onto a floured board. Let the dough rest a few minutes covered with a damp cloth. Knead in the sesame seeds. Add more flour as needed.

When the dough is stiff, roll it out to a thickness of 1/16 of an inch. Cut the crackers into 1×2-inch rectangles and place on an ungreased cookie sheet. Leave space between each cracker. Prick with a fork and bake for about eight minutes. The crackers should brown lightly.

Remove from cookie sheet to wire racks to cool. When cool, store in an airtight container.

Desserts

Sourdough Chocolate Cake

½ cup thick sponge (active starter)
1 cup water
1½ cups flour
¼ cup nonfat dry milk powder

Mix and ferment two to three hours in a warm place until bubbly and there is a clean sour milk odor.

½ cup shortening
1 cup sugar
2 eggs
1 teaspoon cinnamon
1 teaspoon vanilla
½ teaspoon salt
1½ teaspoons baking soda
3 squares melted chocolate, semi-sweet or unsweetened

Combine sugar, oil, salt, vanilla, cinnamon and baking soda. Add eggs one at a time, beating well after each addition. Combine wet mixture and melted chocolate with sourdough mixture. Stir 300 strokes or mix with an electric mixer at low speed until blended. Pour into two well-greased 8-inch round pans or one 9×12-inch rectangular pan. Bake at 350°F for 25 to 30 minutes. Cool and frost with Butterscotch-Chocolate frosting or other icing of your choice.

Butterscotch-Chocolate Frosting — In saucepan combine three 1-ounce squares of unsweetened chocolate, ¼ cup butter or margarine, ½ cup light cream, ⅔ cup brown sugar (packed) and ¼ teaspoon salt. Bring to a boil, stirring constantly; cook until chocolate is melted. Remove from heat; beat in 1 teaspoon vanilla and about 3 cups confectioners' sugar. Spread over sides and top of cake.

Old Fashioned Spice Cookies

½ cup sponge (active sourdough)
¼ cup vegetable oil
½ cup brown sugar
1 egg
½ cup molasses
2 cups flour
¼ teaspoon salt
1 teaspoon ginger
½ teaspoon cinnamon
½ teaspoon cloves
½ teaspoon nutmeg
1 teaspoon baking soda dissolved in 1 tablespoon water

Mix together sourdough, oil, brown sugar, egg and molasses in one bowl and set aside. Mix flour and spices together in another bowl. Blend the dissolved baking soda into the sourdough mixture. Add the dry ingredients and mix well. Drop onto a lightly greased cookie sheet and bake at 400°F about 10 minutes.

When cool, frost with the following: Combine well 1 cup powdered sugar, ¼ teaspoon maple flavoring and 2 tablespoons milk.

Sourdough Yarns

Various stories tell of the sourdough starter's origin. Below are some of the most credible stories.

Sourdough Pete, when a young man, came to Alaska from Michigan at the turn of the century to seek his fortune. His grandmother, who had pioneered in the Michigan woods, knew a thing or two about hardships in a new land. Her parting gift, a crock of yeast starter for hot cakes and bread, made him famous throughout the land. With the help of a sack of flour, Sourdough Pete always had hotcakes to eat, whether he struck it rich or not. He shared it with friends who, the story tells, walked miles to renew or get a starter of the yeast product. Pete became known for his generosity and his starter, hence his name, Sourdough Pete.

In 1900, an Alaska prospector married an Indian girl. They started a sourdough pot and kept the starter going by using it regularly. When she died and the husband became ill, he refused to go to the hospital if he had to leave his sourdough pot. "It is all I have left of my wife," he said. It was given to a woman friend to guard. She kept her promise and used the starter once a week. From it, she gave starters to countless other Alaskans. It is an especially good starter with a clean aroma and flavor.

Other stories of sourdough's survival in spite of hardships and rigors in the far northern Interior explain that the pot of starter needed putting to bed in the coldest weather. Under the covers, sharing its owner's body warmth, the starter survived to leaven the next day's supply of hot cakes. Between camps, it was the last item placed in the pack sack and the first item to be removed upon arrival at the new site.

Another version of the care taken to keep the starter safe on journeys states that the owner wore it in a bag around his neck inside his shirt on long and cold journeys. An old sourdough warns: "If the starter turns orange, it is not spoiled; but if it turns green, it must be discarded." Modern Alaskans do not use discolored starters but keep the starter clean and fresh in a refrigerator or other cool place and use it weekly.

Tanning Hides

Sourdough has other uses too, as this bit of information from an old trapper explains.

To tan small hides such as mink, rabbit, ermine or muskrat, first wash the hide with lukewarm soapy water, using a mild soap. Lay the skin on a flat board, hair side down. Cover it with a thick batter of sourdough. When dough begins to dry, start working the skin. Rub it with a circular motion against the palm of the left hand. Rub and knead the skin until it is dry and soft.

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Julie Cascio, Extension Faculty, Health, Home and Family Development. This publication was first printed in 1958 under the leadership of Lydia Fohn-Hansen.

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