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Sourdough Sampler

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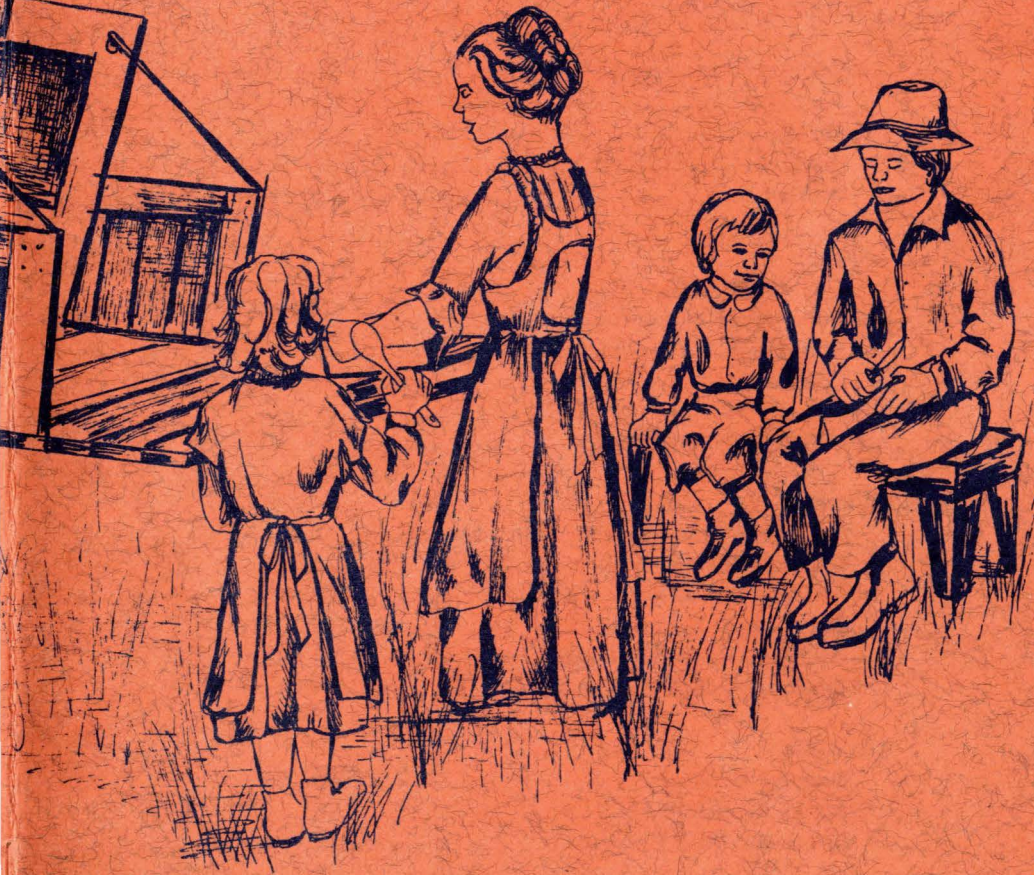
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Sourdough Sampler



Department of Home Economics
Agricultural Experiment Station
Brookings, South Dakota

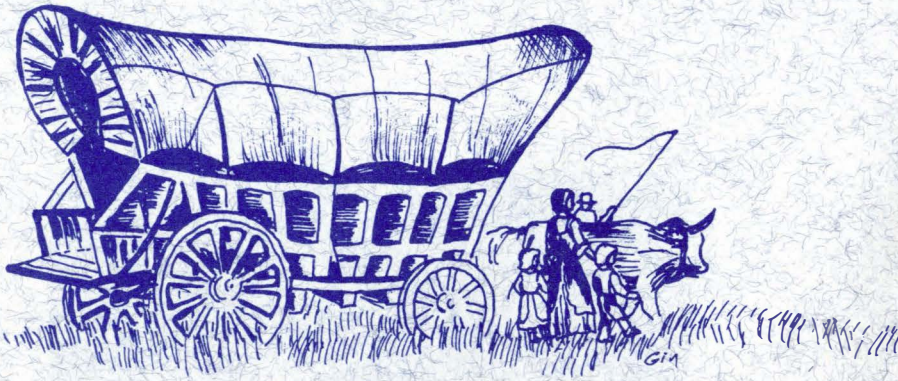
Contents

<i>A Member of the Family</i>	4
<i>Sourdough Starter</i>	6
<i>Sourdough Pancakes & Variations</i>	
<i>Pancakes</i>	6
<i>Variations</i>	6
<i>Hotcakes</i>	7
<i>Waffles</i>	9
<i>Breads</i>	
<i>Sourdough Biscuits</i>	8
<i>Honey Gold Wheat Bread</i>	9
<i>Sourdough White Bread</i>	9
<i>Coffeecake</i>	10
<i>Sourdough Doughnuts</i>	10
<i>Cakes</i>	
<i>Myrtle's Sourdough Chocolate Cake</i>	11
<i>Miki's Chocolate Cake</i>	11
<i>Applesauce Cake</i>	12
<i>Burnt Sugar Spice Cake</i>	13
<i>Wild Irish Rose Raisin Cake</i>	13
<i>Sourdough Jack's Spice Cake</i>	14
<i>Cookies</i>	
<i>Oatmeal Cookies</i>	14
<i>Honey Drop Cookies</i>	15
<i>Chocolate Drop Cookies</i>	15



**Recipes developed by Donna Harms
Edited by Dorothy Deethardt**

Donna Harms, a junior from Sioux Falls, developed the sourdough recipes in this bulletin for her class in experimental testing and development in food science at SDSU. Dorothy Deethardt is research assistant in the Department of Home Economics, and edited the recipes for publication.



A Member of the Family

Sourdough, the first convenience food of all times, dates back to 4000 B.C., when the Egyptians discovered its mystical leavening power. Since then it has spread to many cultures, and has a solid place in United States history and folklore.

“Sourdoughs” were the mountain men, shepherders, pioneers, prospectors, and miners of the Old West. Sourdough was their only continuous supply of leavened breads in wilderness areas. Ordinary tame yeast plants didn’t grow well under the adverse conditions which the oldtimers encountered, but the wild yeasts from the air and flour grew and bubbled madly with little care.

To carry the starter from camp to camp, they merely added enough flour to the starter to make a ball of dough, and then buried it deep in the flour sack. Water and warmth at the next campsite started it growing again.

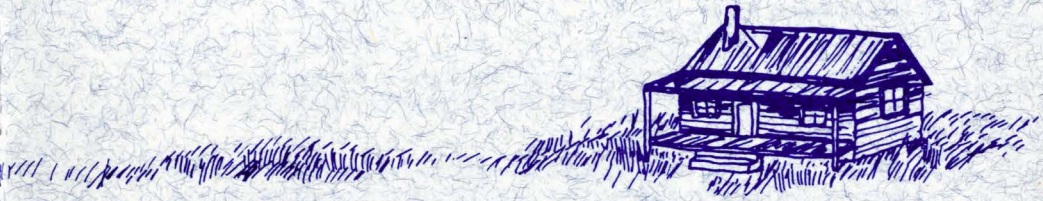
Other tales tell of the cherished sourdough crock with starter given as a part of a bride’s dowry, and of the starter going to bed with its owner to assure its survival through the long cold winters.

Sourdoughs used their starter in breads, biscuits, hotcakes, cakes, pie crusts, and even as an alcoholic beverage called “hooch” when other alcohol was not available. “Hooch” was the liquid poured off the top of the batter after it had rested a while. It has been said that the drink kept many a prospector happy during the hard winters.

Sharing a bit of starter is a true act of friendship, but it’s not necessary to have an age-old starter. It is very simple to make, and there are several methods.

One way is to mix equal amounts of flour and water or milk and set in a warm place overnight in a loosely covered glass, ceramic, or plastic container. Check that—no metal: the acidity of the starter will corrode metal and spoil the starter.

The wild yeasts in the air and flour will start working and form the sourdough starter, which has a clean sour milk odor. The lactic acid bacteria convert the wheat starch and the sugar into lactic acid and carbon dioxide.



You may have to throw out a batch or two and make another start before you find a satisfactory brew. Each batch of sourdough is completely unique. Success is unpredictable, depending on the type of flour, the yeast spores in the flour and floating around in the air in your kitchen, the temperature, and the humidity. Some wild yeasts may give poor rising power and off flavors. Some may just sit there and refuse to work.

If you haven't done much baking, or it's winter and the kitchen is cold, there may not be many yeasts in the air. Then, it's best to begin the starter by using commercial active dry yeast.

Once the starter has rested in a warm place overnight—try your unlit oven if you can't find another place—it is ready to use. Always save a bit (as little as 2 or 3 tablespoons) to put back in the crock in the refrigerator for next time.

The day before the next use, set it out, add equal amounts of flour and warm water, cover loosely, and set in a warm place to bubble away. The next day it is ready to use again.

Starter should be used at least every 2 to 3 weeks. If it is not used in that time, freeze it or dry it into a ball by adding flour.

Don't put any left-over recipe fixings back into the sourdough crock with the starter, as the soda and other ingredients may kill the yeast.

Soda or baking powder is used in the recipe to react with the lactic acid. This forms more gas and makes the batter lighter. It also neutralizes the acid and decreases the sour flavor. It should be added only just before baking because it kills the yeast almost immediately but leaves the characteristic odor and flavor.

So let your special pot of sourdough starter bubble and grow. You'll soon find that it almost becomes a member of the family. The highlight of the evening chow for many cattlemen was the campfire sourdough biscuits. The highlight of your meals can be the following modern versions of sourdough recipes.

Sourdough Starter

- 1 package active dry yeast
- 2 cups warm water
- 2 cups all-purpose flour

Dissolve yeast in water. Stir in flour. Let stand in covered bowl in a warm place free of drafts for 18-24 hours. Use immediately or refrigerate.

The day before you will prepare a sourdough recipe, remove starter from the refrigerator and feed it. "Feeding" is adding equal parts of flour and water to the existing starter and allowing it to stand in a warm, draft-free place.

For example, if the recipe calls for 1 cup of starter and there is a half cup in the refrigerator, the day before baking, set the starter out and add 1 cup of water and 1 cup of flour. The next day when you take out your recipe's worth, cover and refrigerate the rest to keep for next time.

Pancakes Variations

- $\frac{3}{4}$ cup sourdough starter
- $\frac{1}{3}$ cup nonfat dry milk
- 1 egg, beaten
- $\frac{3}{4}$ teaspoon salt
- 1 teaspoon soda
- 2 teaspoons oil
- 2 tablespoons water*
- 1 tablespoon + 1 teaspoon white sugar

Combine starter, egg, water, and oil. Combine dry ingredients and add to starter mixture. Mix with fork until batter is smooth. Bake on greased 350° griddle until golden brown on the bottom. Flip and bake second side. Makes about 8 pancakes.

* Depending upon the consistency of the individual starter, enough water should be added to make a batter like heavy cream for thick pancakes, and light cream for thinner pancakes.

Variations:

- (1) $\frac{3}{4}$ teaspoon baking powder may be used in place of the soda. This depends upon personal taste.
- (2) 1 tablespoon brown sugar may be used in place of the white sugar.
- (3) 1 tablespoon white corn syrup or honey may be used in place of the white sugar.
- (4) $\frac{1}{4}$ cup whole wheat flour + 1 tablespoon water may be added in addition to the ingredients of the basic recipe.
- (5) 2 tablespoons wheat germ + 1 tablespoon water may be added to the ingredients of the basic recipe.

Hotcakes

- 1 cup sourdough starter
- 2 cups unsifted all-purpose flour
- 2 cups milk
- 1 teaspoon salt
- 2 teaspoons baking soda
- 2 eggs
- 3 tablespoons melted shortening
- 2 tablespoons sugar

Mix starter, flour, milk and salt together in a plastic or glass bowl. Cover and let set about 12 hours in a warm place free from drafts.

Just before baking the cakes, add the baking soda, eggs, shortening and sugar. Blend thoroughly.

Bake on hot griddle (380°F., 193°C.) using about 2 tablespoons batter for each cake. These cakes will be thicker than those of the preceding recipe. Those variations and many more can be used with this sourdough mix, such as adding buckwheat flour or rye flour, mashed bananas, blueberries, grated apple or whatever your imagination will let you try.



Sourdough Biscuits

This recipe is just one of the many ways to make sourdough biscuits.

- 1 cup unsifted all-purpose flour
- ½ tablespoon sugar
- 1 teaspoon baking powder
- ¼ teaspoon salt
- ¼ cup butter
- 1 cup sourdough starter

Sift together dry ingredients. Cut in butter as for baking powder biscuits. Stir in sourdough starter with a fork. Knead lightly to gather up all the flour. Roll dough ½ inch thick and cut into 2-inch rounds. Place on cookie sheet with space between biscuits so they do not touch each other for uniform crust and browning. Cover, and let rise in a warm place for 30 minutes. Bake in a hot oven 425-450°F. (218-232°C.) for 10-12 minutes.

Do not overbake. Serve warm with butter, honey or your favorite jelly, jam or marmalade. Makes 16 small biscuits. This recipe can easily be doubled.



Honey Gold Wheat Bread

- 2 cups sourdough starter
- 1 cup milk
- 1 tablespoon margarine or butter
- 2 tablespoons honey
- 1½ teaspoons active dry yeast
- 1 cup whole wheat flour
- 2 tablespoons wheat germ
- 1 tablespoon white sugar
- 1 teaspoon salt
- 1 teaspoon soda
- 2 cups all-purpose flour

Scald milk; stir in butter and honey, then allow to cool until lukewarm. Add yeast and stir until dissolved. Add this mix to sourdough starter. Add wheat flour and wheat germ, stirring until well mixed.

Blend sugar, salt, and soda until smooth; sprinkle over top of dough and stir in gently. Set dough in warm spot, cover with cloth and let rise for 30 minutes.

Stir down and add rest of flour until dough is too stiff to stir with a spoon. Turn out on floured board and begin to knead with hands.

(Note: Flour required may vary from quantity indicated—you must gauge the feel—rather too little than too much.) Knead with heels of hands about 100 times until dough is light and satiny to the touch. Pat dough into long rectangle and roll up to form loaf, sealing ends. Place in greased bread pan. Grease top of loaf, set in warm place and let double in bulk again.

Bake in 400° oven for 15 minutes. Reduce to 325° and continue baking until bread shrinks from side of pan. When baked, loaf will give a hollow sound when thumped on top. Remove from oven, turn out on rack and butter top.

Sourdough White Bread

This is a variation of Honey Gold Wheat Bread. Omit honey and wheat germ, and substitute white flour for wheat flour. Follow remainder of directions.

Waffles

- 1 cup sourdough starter
- 2 cups unsifted all-purpose flour
- 2 cups milk
- 1 teaspoon salt
- 2 teaspoons baking soda
- 4 eggs, separated
- ¼ cup melted butter
- 2 tablespoons sugar

Mix starter, flour, milk and salt together in a large plastic or glass bowl. Cover and let sit in a warm place, free from drafts, for about 12 hours or overnight:

Just before baking the waffles, add the soda, butter and beaten egg yolks. Blend well. Fold in stiffly beaten egg whites. Bake on a hot waffle iron until delicately browned and crisp. Serve hot with butter and syrup. Fruit syrups make an interesting change in flavor. Makes 8 large waffles.

Coffeecake

6 tablespoons butter or margarine
1 cup white sugar
2 eggs, beaten
1 teaspoon vanilla
½ cup sourdough starter
½ cup milk
1½ cups all-purpose flour
1 teaspoon soda
½ teaspoon salt

Sugar Filling:

½ cup brown sugar
1 teaspoon cinnamon
½ cup chopped pecans

Cream white sugar and shortening together until light and fluffy. Add vanilla and eggs, and beat well. Stir in starter. Sift dry ingredients together. Alternately add the dry mixture and the milk to the creamed mixture (beginning and ending with dry ingredients), and beating well after each addition.

Pour half the batter into a greased and floured 9x9x2 pan. Sprinkle half the sugar filling over this, cover with remaining batter, and sprinkle remaining sugar filling over this. Bake 350° for 30 minutes, or until it tests done. Drizzle with a powdered sugar icing.

Sourdough Doughnuts

½ cup sourdough starter
½ cup sugar
2 tablespoons vegetable shortening
1 egg
2 cups sifted all-purpose flour
1 teaspoon baking powder
½ teaspoon baking soda
½ teaspoon salt
½ teaspoon nutmeg
¼ teaspoon cinnamon
⅓ cup buttermilk

Sift dry ingredients together. Cream shortening and sugar. Add egg and beat until light and fluffy. Blend in sourdough starter. Add dry ingredients alternately with the buttermilk. Dough will be soft, but handle as little as possible. Roll to ½ inch thick on floured board. Cut with doughnut cutter. Deep-fat fry at 390°F. (199°C.) for 2 to 3 minutes or until delicately brown. Makes 18 doughnuts and holes.

Myrtle's Sourdough Chocolate Cake

3 oz. unsweetened baking chocolate
½ cup vegetable shortening
1 cup white sugar
1 teaspoon vanilla
1 teaspoon red food coloring (optional)
2 eggs, beaten
½ cup sourdough-starter
¼ cup nonfat dry milk
1 cup warm water
1½ cups all-purpose flour
½ teaspoon salt
1½ teaspoons soda

Melt chocolate and set aside to cool. Cream sugar and shortening together until light and fluffy. Add vanilla, red food coloring, and eggs. Beat well. Stir in the melted chocolate and the sourdough starter.

Dissolve the dry milk in warm water. Set aside. Sift dry ingredients together. Alternately add the dry and the liquid mixtures to the creamed mixture (beginning and ending with dry ingredients), and beating after each addition.

Pour into a greased and floured 9x13x2 pan. Bake at 350° for 30 minutes or until a toothpick comes out clean.

Miki's Chocolate Cake

¾ cup vegetable shortening
1¾ cups white sugar
1 teaspoon vanilla
3 eggs, beaten
1 cup sourdough starter
2 cups all-purpose flour
¾ cup cocoa
½ teaspoon baking powder
1½ teaspoons soda
1 teaspoon salt
1 cup water

Cream sugar and shortening together until light and fluffy. Add vanilla and eggs. Beat well. Stir in starter.

Sift together dry ingredients. Alternately add the dry mixture and the water to the creamed mixture (beginning and ending with dry ingredients), and beating after each addition.

Pour into a greased and floured 9x13x2 pan. Bake at 350° for 30 minutes or until a toothpick comes out clean.

Variation: Yellow Cake

Use the same proportions as above except omit soda and cocoa, and use a total of 3 teaspoons baking powder. Prepare as above.

Applesauce Cake

- 1 cup sourdough starter
- ½ cup nonfat dry milk
- 1 cup all-purpose flour
- 1 cup applesauce
- ½ cup white sugar
- ½ cup brown sugar
- ½ cup margarine
- 2 eggs, beaten
- ½ teaspoon salt
- 1 teaspoon cinnamon
- ½ teaspoon nutmeg
- ½ teaspoon allspice
- ½ teaspoon cloves
- 2 teaspoons soda
- ½ cup raisins
- ½ cup chopped walnuts

Combine first four ingredients and let sit in bowl. Cream sugar and shortening until fluffy. Add eggs and beat well. Add salt, spices, and soda. Blend in starter mixture.

Add raisins and nuts. Pour batter into greased and floured 9x13x2 pan. Bake at 350° for 30 minutes or until a toothpick comes out clean.



Burnt Sugar Spice Cake

- ½ cup vegetable shortening
- 1 cup white sugar
- 2 eggs, beaten
- ½ cup sourdough starter
- ½ cup buttermilk
- 3 tablespoons burnt sugar syrup (see below)
- 2 cups all-purpose flour
- 1 teaspoon soda
- ½ teaspoon salt
- 1 teaspoon cinnamon
- ½ teaspoon cloves
- ½ teaspoon nutmeg
- ½ cup raisins
- ½ cup chopped walnuts

Cream sugar and shortening until fluffy. Add eggs and beat well. Combine starter, buttermilk and syrup. Set aside. Sift dry ingredients together. Alternately add dry and liquid mixtures to creamed mixture (beginning and ending with dry ingredients), and beating after each addition. Stir-in raisins and nuts. Pour into greased and floured 9x13x2 pan. Bake at 350° for 30 minutes or until a toothpick comes out clean.

Burnt Sugar Syrup

- ½ cup white sugar
- ¼ cup hot water

Put sugar into small skillet and stir over medium heat until melted and quite dark. Remove from heat, add water and stir in well. Be careful, as syrup spatters when water is added.

Wild Irish Rose Raisin Cake

- ½ cup vegetable shortening
- 1½ cups white sugar
- 2 eggs, beaten
- ½ cup sourdough starter
- 1 cup buttermilk
- 2 cups all-purpose flour
- 1½ teaspoons soda
- 1 teaspoon cinnamon
- ½ teaspoon salt
- 1 cup raisins, plumped*
- 1 cup chopped walnuts

Cream sugar and shortening until fluffy. Add eggs and beat well. Combine starter and buttermilk. Sift dry ingredients together. Alternately add dry and liquid mixture to creamed mixture (beginning and ending with dry ingredients), beating after each addition. Stir in plumped raisins and nuts. Pour into greased and floured 9x13x2 pan. Bake at 350° for 30 minutes or until a toothpick comes out clean.

*Plumping raisins: Plump by covering with boiling water for 5 minutes. Drain thoroughly before adding to recipe.

Sourdough Jack's Spice Cake

½ cup vegetable shortening
1 cup white sugar
2 eggs, beaten
1 teaspoon vanilla
1 cup sourdough starter
1 cup evaporated milk
2 cups all-purpose flour
1 teaspoon cinnamon
½ teaspoon cloves
½ teaspoon nutmeg
½ teaspoon salt
1½ teaspoons soda
½ cup raisins
½ cup chopped walnuts

Cream sugar and shortening until fluffy. Add eggs and vanilla and beat together. Combine starter and evaporated milk. Sift dry ingredients together. Alternately add dry and liquid mixture to creamed mixture (beginning and ending with dry ingredients), beating after each addition. Stir in raisins and nuts. Pour into greased and floured 9x13x2 pan. Bake at 350° for 30 minutes or until a toothpick comes out clean.

Oatmeal Cookies

1 cup brown sugar
½ cup margarine
½ cup vegetable shortening
1⅓ cups sourdough starter
2½ cups rolled oats
1 teaspoon cinnamon
½ teaspoon cloves
½ teaspoon allspice
½ teaspoon soda
1½ cups all-purpose flour
½ cup raisins
½ cup chopped walnuts

Cream sugar, margarine, and shortening. Add starter. Sift together dry ingredients and add to above mixture. Add raisins and nuts and mix well. Drop by teaspoonfuls onto greased cookie sheet. Bake at 350° for 8-10 minutes. Makes about 7 dozen.

Honey Drop Cookies

- ¼ cup vegetable shortening
- ½ cup brown sugar
- 1 egg, beaten
- ½ cup honey
- 1 teaspoon vanilla
- ½ cup sourdough starter
- 1 teaspoon soda
- 2 cups all-purpose flour
- ½ teaspoon salt

Cream sugar and shortening. Add egg, vanilla, honey and starter. Blend well. Sift together dry ingredients and add to above, mixing well. Drop dough by teaspoonfuls onto greased cookie sheet. Do not flatten! Bake 6-8 minutes at 350°.

Chocolate Drop Cookies

This is a variation of Honey Drop Cookies. Add 2 ounces unsweetened baking chocolate, melted, at the same time starter is added. Blend well. Continue as directed for Honey Drop Cookies.





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