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The use of rice polishings in cooking

Martha E. Hollinger
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INTRODUCTION

It has been recognized for many years that the by-products of rice (polishings and bran) are more nutritious than polished rice. Rice polishings contain from 2,250 to 5,000 International Units of vitamin $B_1$ (thiamin) per pound. The same amount of unfortified white flour contains approximately 335 International Units. The enriched flour that is now being marketed contains approximately 900 International Units of vitamin $B_1$ per pound. Rice polishings can be purchased from the rice mills at a much lower cost per pound than white flour. It has been found in the Nutrition Laboratories at Louisiana State University that 88 to 92 per cent of the thiamin value is retained after baking and practically none is lost in boiling. They are also a good source of the other vitamins of the B complex, with the possible exception of riboflavin. In addition they are a valuable source of minerals.

Rice polishings can be used in human foods as a natural and economical method of adding vitamin $B_1$ to the diet. They give a characteristic color and flavor to the products in which they are used. The flavor is very pleasing to many people, while others readily develop a taste for it. Rice polishings contain more fat and less gluten than white flour and consequently make tender products. Less fat should be used in doughs containing this product than in those made entirely with white flour. In some cases, as in griddle cakes and muffins, excellent results are obtained with no added fat. If the rice polishings have not been carefully sifted or "bolted" at the mill it is advisable to sift them through a fine sieve to remove broken grains of rice which do not become well cooked in baked products.

Rice polishings are ordinarily put up only in large bags for livestock feeding. However, many rice millers will be willing to supply the housewife with smaller quantities which they take directly from the mill, thus insuring freshness and cleanliness. Many grocery stores are now selling

* Rice polishings (or rice polish) are a by-product of rice obtained in the milling operation of brushing the grain to polish the kernel.
them in retail packages or will do so if there is sufficient demand in the community.

Rice polishings, like other cereal products which contain the outer coating of the grain, may become rancid or infested with insects if not properly stored or if kept for too long a time. For this reason, they should not be purchased in too large quantities and should be stored in a cool place, preferably in the refrigerator. This is especially true of the warmer months.

Rice is milled throughout the fall and winter months, and the polishings can be obtained fresh from the mill throughout a large part of the year.

The following recipes have been tested in the Nutrition Laboratories at Louisiana State University and have been widely used. They have been adapted from standard recipes. General purpose flour has been used in our testing. If too tender a product results when other flour is used, the fat in the recipe should be reduced. *All measurements are level.*

**RECIPIES INVOLVING THE USE OF RICE POLISHINGS**

**Biscuits**

1 1/2 cups flour 4 teaspoons baking powder
1/2 cup sifted rice polishings 2 tablespoons fat
1/2 teaspoon salt 2/3 cup milk

Sift flour and rice polishings before measuring. Mix all dry ingredients. Cut fat in until there are no lumps larger than a pea. Add milk all at once. Stir until well blended. Knead slightly, roll, and cut. Bake in a hot oven (425° F.).

**Corn Bread**

1 1/2 cups corn meal 3/4 teaspoon salt
1/2 cup sifted rice polishings 1 egg
3 teaspoons baking powder 1 1/2 cups milk

Mix in the usual manner. Bake in hot oven until well browned and crusty. (425° F.).

**Griddle Cakes**

1 cup sifted rice polishings 1 1/2 teaspoons salt
1 cup flour 2 eggs
1 cup corn meal 2 to 2 1/2 cups milk, depending
1 tablespoon sugar on the thickness of griddle cake
6 teaspoons baking powder preferred.

Mix and bake in the usual manner.
Muffins

1 1/2 cups flour 4 teaspoons baking powder
1/2 cup sifted rice polishings 2 eggs
1/2 teaspoon salt 2/3 cup milk
2 tablespoons sugar

Mix together all dry ingredients. Beat eggs, add milk, and mix well. Pour this mixture into the dry ingredients, mix only until dry ingredients are well dampened. Pour into well greased muffin pans and bake in hot oven until they are well browned and spring back into shape when lightly touched with finger. Makes 12 large muffins.

Pie Crust

3/4 cup flour 3 tablespoons fat
1/4 cup sifted rice polishings 2 tablespoons water
1/2 teaspoon salt

Mix flour, rice polishings, and salt. Cut fat in until there are no lumps larger than a pea. Cut water in to form a very stiff dough. Roll thin. Bake in a hot oven (425° F.). Makes one large crust.

Crisp Tea Cakes

1/2 cup fat, preferably part butter 1/2 teaspoon salt
1 cup sugar 1 1/2 cups flour
1 egg 1 1/2 cups sifted rice polishings
2 tablespoons milk 1/2 teaspoon soda
1 1/2 teaspoons vanilla 3 teaspoons baking powder

Cream fat, add sugar, creaming together thoroughly. Add egg and milk and mix thoroughly. Mix dry ingredients thoroughly and add to the first mixture mixing to a stiff dough. Chill for an hour or more, roll thin, and bake in moderate oven until delicately browned.

Molasses Drop Cookies

1 1/2 cups cane syrup 6 teaspoons baking powder
1/2 cup melted shortening 1/2 teaspoon salt
1 egg 1/2 teaspoon ginger
3 1/2 cups flour 1/2 teaspoon cinnamon
1 cup sifted rice polishings

Mix in the usual manner. Drop by spoonfuls on a lightly greased baking sheet. Bake in a moderate oven (350° to 375° F.).
Chocolate Drop Cookies

1 cup sugar  
1/2 cup fat  
2 tablespoons milk  
1/2 teaspoon vanilla  
2/3 cup sifted rice polishings  
1 1/3 cups flour

2 eggs  
2 teaspoons baking powder  
6 tablespoons cocoa  
1/4 teaspoon salt  
1 cup chopped nuts

Mix in the usual manner. Drop by spoonfuls on a baking sheet. Bake in a moderate oven (350° to 375° F.).

Spice Drop Cookies

1 cup sugar  
1/2 cup fat  
1/4 cup milk  
2/3 cup sifted rice polishings

1 1/3 cups flour  
1 egg  
2 teaspoons baking powder  
1 teaspoon ground nutmeg

Mix in the usual manner. Drop by spoonfuls on baking sheet. Bake in moderate oven (350° to 375° F.).

Ice Box Cookies

2/3 cup fat  
1/3 cup water  
1/3 cup brown sugar  
1 egg  
1/3 teaspoon salt

1 teaspoon cinnamon  
3/4 cup flour  
3/4 cup sifted rice polishings  
1/3 teaspoon soda  
1/2 cup pecans

Mix, roll in wax paper. Chill, slice thin, and bake in moderate oven (350° to 375° F.).

Rice Polishings Chocolate Pudding

2 squares chocolate or 6 tablespoons cocoa  
2/3 cup sifted rice polishings  
1/2 cup sugar

1/2 teaspoon salt  
2 cups milk  
2 eggs  
1 teaspoon vanilla

Melt chocolate over water, add milk and heat. Mix sugar, rice polishings, and salt. Add this mixture to heated milk, stirring thoroughly. Cook in a double boiler or over a slow fire until well thickened. Pour slowly into the beaten eggs, return to sauce pan and cook two or three minutes longer. Add vanilla, cool, and serve.

Chocolate Milk

1/3 cup sifted rice polishings  
3/4 cup sugar  
1/2 cup cocoa

1/8 teaspoon salt  
1 cup water

Mix dry ingredients thoroughly. Add water, and cook over hot water until thick. (The paste burns easily.) Cool the paste and add about two tablespoons to one cup of whole milk either cold or hot.
**Butterscotch Milk**

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\begin{align*}
\text{1/2 cup sifted rice polishings} & \quad \text{1 cup water} \\
\text{3/4 cup brown sugar} & \quad \text{1/8 teaspoon salt}
\end{align*}
\]

Mix and cook to a thick paste using the double boiler. (The paste burns easily.)

For a cold drink: Fold 1 heaping tablespoon whipped cream, 2 tablespoons of paste, and 1 cup cold whole milk together.

For a hot drink: Heat 2 tablespoons of the paste in one cup of whole milk.

**Waffles**

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\begin{align*}
\text{1 cup flour} & \quad \text{1 egg separated} \\
\text{1/4 cup sifted rice polishings} & \quad \text{1 cup sweet milk} \\
\text{1/2 teaspoon salt} & \quad \text{2 tablespoons melted shortening} \\
\text{1 tablespoon sugar} & \quad \\
\end{align*}
\]

Sift dry ingredients. Beat egg yolk, add milk and melted shortening. Pour this mixture, all at once, into center of dry ingredients. Stir just until no dry flour can be seen. Fold in stiffly beaten egg whites. Bake in a well heated waffle iron. Yield: 3 large waffles.

**Boston Brown Bread**

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\begin{align*}
\text{1/4 cup white flour} & \quad \text{1 cup sour milk} \\
\text{1 teaspoon salt} & \quad \text{1 cup molasses} \\
\text{1 teaspoon soda} & \quad \text{1 cup corn meal} \\
\text{1 egg well beaten} & \quad \text{1 cup sifted rice polishings} \\
\text{1 cup sweet milk} & \quad \text{1 cup whole wheat flour}
\end{align*}
\]

Sift white flour, salt and soda. Add corn meal, whole wheat flour and rice polishings. Combine milk, egg and molasses. Turn into dry ingredients. Mix thoroughly. Turn into greased pans. Bake 45 minutes in moderate oven or steam 3 hours and bake 1/2 hour. Yield: 3 one-pound loaves.

**Yeast Rolls**

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\begin{align*}
\text{1 cake yeast} & \quad \text{1 1/2 teaspoons salt} \\
\text{1 1/4 cup lukewarm water} & \quad \text{1 egg well beaten} \\
\text{1 cup scalded milk} & \quad \text{1 cup rice polishings} \\
\text{2 tablespoons sugar} & \quad 2 1/2 to 3 cups flour
\end{align*}
\]

Soften yeast in lukewarm water. Pour hot milk over sugar and salt. Cool to lukewarm. Add softened yeast, beaten egg, rice polishings and enough flour to make a soft dough. Knead until smooth. Place in a greased bowl, grease top lightly and let rise until doubled in size. Shape into desired form, let rise until light and bake in a hot oven (400° F.). Yield: 18 rolls.
Raised Muffins

1 cup scalded milk  1/4 cup sugar
1 cup boiling water  3/4 teaspoon salt
2 tablespoons butter  1/2 cup rice polishings
1 cake yeast  3 1/2 cups flour
1 egg well beaten

Add butter, sugar and salt to milk and water. Cool to lukewarm, add yeast cake, egg and flour. Beat thoroughly. Let rise until light. Fill greased muffin pans half full. Let rise until pans are full. Bake 30 minutes in moderately hot oven (375° F.). The batter may be placed directly in the pans after mixing, thus saving the time required for the first rising. Yield: 2 dozen large muffins.

Molasses Spice Cake

1/2 cup cane syrup or molasses  1/4 teaspoon soda
3 tablespoons melted fat  1 teaspoon baking powder
1 egg  1/4 teaspoon salt
2 tablespoons water  1/4 teaspoon cinnamon
1 cup wheat flour  1/4 teaspoon allspice
1/4 cup sifted rice polishings  1/4 teaspoon nutmeg

Add melted fat to syrup or molasses. Add beaten egg and water. Mix flour, rice polishings and spices. Add this dry mixture to liquid ingredients and mix well. Add baking powder and soda and stir just enough to mix. Bake in a moderate oven (360° F.). Serves 6 to 8.

Other Ways of Using Rice Polishings

The housewife who wishes to do so can find many other ways to incorporate this valuable and inexpensive food in the family diet. They may be added to meat for meat loaf or hamburger in the proportion of one cup of rice polishings to one pound of ground meat. They may be used for thickening in soups and stews and for coating fish or steak before frying. Reports have been received of their use as a thickening agent in ice creams in place of a refined starch and of adding small amounts to boiled rice before cooking. They may be added in this manner to any cooked cereal.