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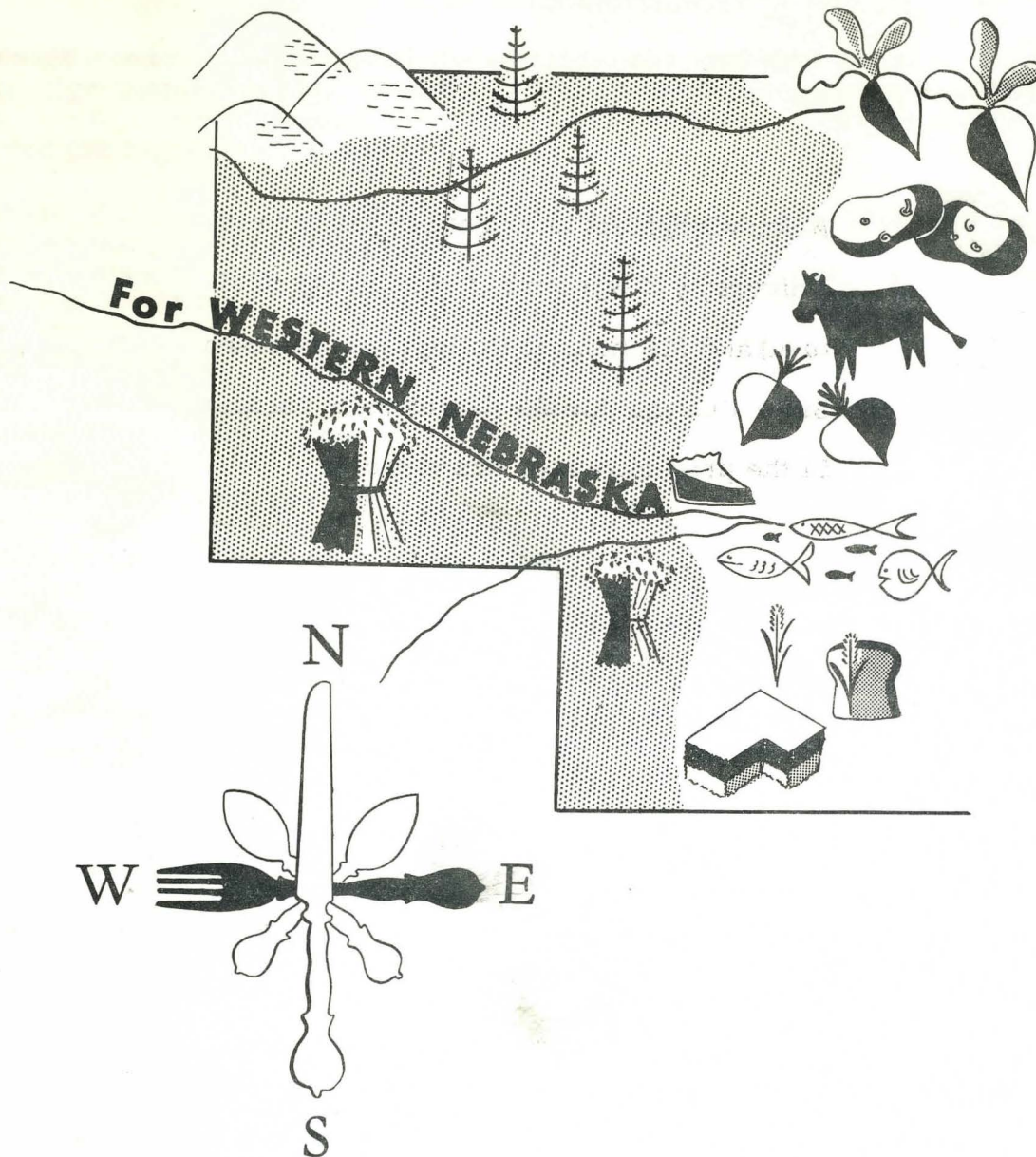
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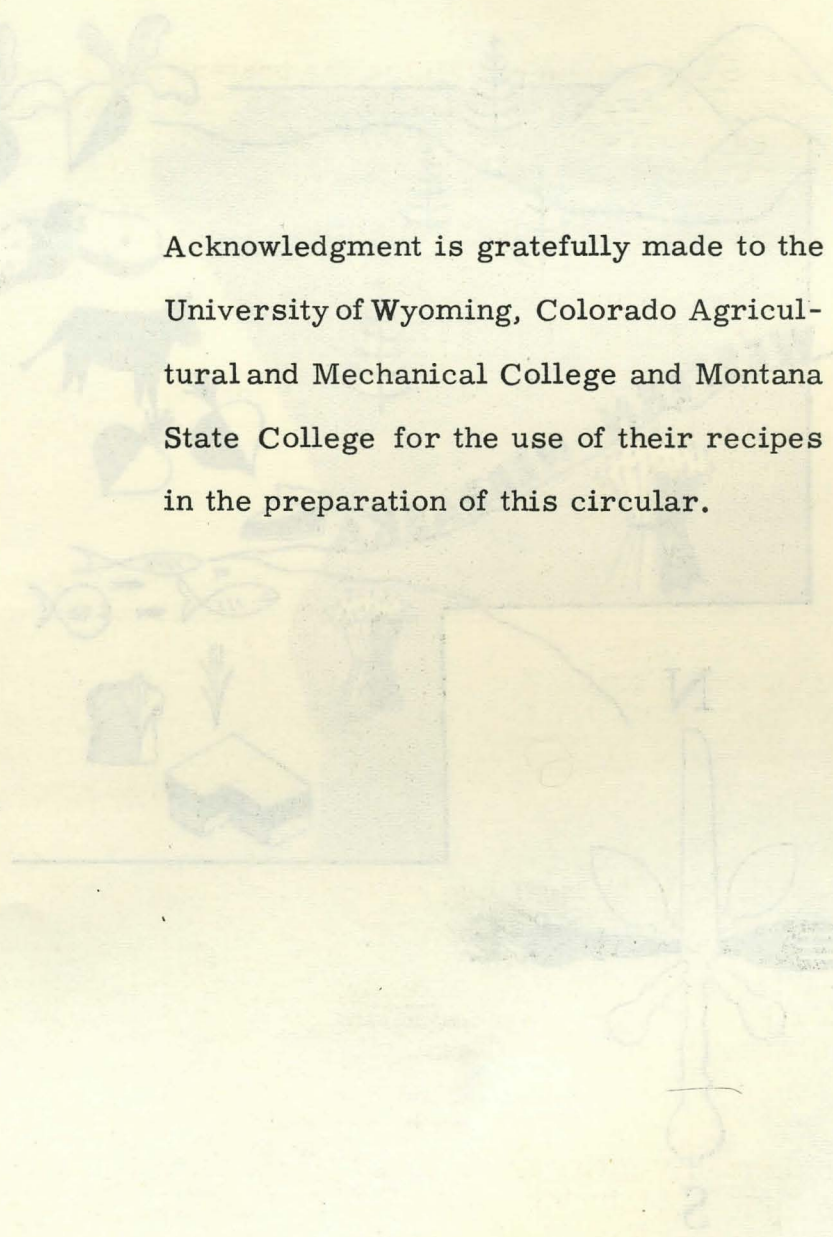
Altitude Cooking



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Altitude Cooking

Acknowledgment is gratefully made to the University of Wyoming, Colorado Agricultural and Mechanical College and Montana State College for the use of their recipes in the preparation of this circular.



Altitude Cooking For Western Nebraska

Ethel Diedrichsen
Extension Nutritionist

Unexpected results in high altitude baking may surprise you if you are a newcomer to the high plains region. Your favorite sea level recipes especially for cakes and cookies often prove disappointing. Success can be yours if you use recipes that are adjusted for higher elevations.

Many of the adjustments are related to change in air pressure with change in altitude. As the altitude increases the air pressure becomes less; the leavening gas expands more and causes a coarse, crumbly or some times fallen product.

At higher altitudes recipes are more sensitive to slight errors in measuring or mixing. Therefore, it is important to follow directions carefully. Always sift flour before measuring. Be sure the measurements are exact and note especially the adding or subtracting of tablespoons of flour or liquid.

Changes in Sea Level Recipes:

Even basic recipes vary in proportion and type of ingredients, or methods of mixing and handling. These variations make it difficult to give definite rules for altitude adjustment. Basic recipes which yield a standard product at places near sea level will usually give good results, if correctly used, at elevations up to 3000 feet without any adjustment. Some give good results without any change up to 5000 feet and possibly higher. The usual change in a cake containing shortening is to reduce the baking powder. A reduction in sugar and an increase in liquid at higher altitudes may also improve the cake. A well balanced recipe will require fewer adjustments than one which is not so well balanced.

Air is the leavening agent in angel food and sponge cakes. At altitudes of 4000 feet or more, the sugar in angel food cakes may be reduced. The egg whites should be beaten until they form peaks which just fall over. A higher baking temperature for a shorter time is more satisfactory. For sponge cakes, less sugar and more liquid should be used. The eggs or egg yolks should not be over-beaten and if baking powder is called for, the amount should be reduced.

A slight decrease in baking powder may be made for biscuits, muffins, and quick breads. For popovers, the amount of egg in the batter should be increased and the shortening reduced. This makes a stronger batter which will be able to hold the steam long enough for a crust to form. Popovers made by sea level recipes lose the steam too fast, both by expansion and evaporation, and turn out more like muffins. Cream puff batter, being much heavier, holds the steam well and does not require any correction for altitude.

Yeast bread dough rises more rapidly at high altitudes and may become too light if it is not watched carefully. Less yeast may be used, but most bakers prefer to let the dough rise for a shorter time. Flour dries out faster at high altitudes and it may be necessary to use more liquid to make the dough the proper consistency.

Cookies usually do not need adjustment for altitude. A slight reduction in baking powder and sugar may improve them. Piecrust is not affected by altitude except for the faster rate of evaporation. Therefore, slightly more liquid may be required.

Doughnuts made from sea-level recipes often crack, absorb too much fat and become hard and brown. Less baking powder and shortening should be used and some times the sugar should also be reduced. The best temperatures for deep frying are slightly below those recommended at sea level. Lower temperatures prevent too deep browning while the food is cooking. This browning is more pronounced with re-used fats.

All About Cakes:

Cake flour is used in the recipes to produce light and tender cakes. The baking powder called for is double-acting baking powder. If single-acting baking powder is used, usually one and one-half times more will be required for the same leavening action.

The recipes have been adapted to different types of shortening: margarine or butter, hydrogenated shortening, with or without an emulsifying agent added. The emulsifying agents are usually glyceride compounds and may be named on the label. The emulsified types of shortening are preferred for the quick-mix or "streamline cakes". The other shortenings may be used for streamline cakes but the volume of the cake may be somewhat less.

Cakes are easier to remove from pans if waxed paper, cut to fit the bottom is used. The pan should be greased, then fitted with waxed paper and the paper greased. If preferred, the pan may be dusted with flour after greasing. Do not grease the sides of the pan. After the batter has been poured into the pan it is well to cut through it several times with a knife to release the large pockets of air which may be trapped in it. When the cake is removed from the pan, lift off the waxed paper immediately. Cool the cake on a rack before frosting or storing.

Various methods of mixing including the conventional type, the streamline type and the electric mixer method are used. To insure best results the number of strokes for hand mixing or the number of minutes for the electric mixer have been included. The recipes which follow should give good results at elevations from 3000 to 5000 feet.

TWO-EGG CAKE (Conventional Method)

2 cups sifted cake flour	1 cup sugar
1 1/2 teaspoons baking powder	1 teaspoon vanilla
1/2 teaspoon salt	2 eggs, beaten
1/2 cup vegetable shortening	3/4 cup plus 1 tablespoon milk

Sift flour, baking powder and salt together 3 times. Soften shortening (1 minute at medium speed on the mixer). Add sugar and vanilla gradually and cream until light and fluffy (5 minutes on mixer). Add beaten eggs and mix thoroughly (1 minute on mixer). Add dry ingredients and milk alternately by thirds. Beat 75 strokes after each third or for a total of 4 minutes at low speed on the mixer. Bake in two 8-inch layer pans at 375° for 25 to 30 minutes. (Colorado Bulletin)

COCOA CAKE - A simple and economical cake may be made by substituting 1/2 cup cocoa for 1/2 cup of flour in the two-egg cake.

SPICE CAKE - Sift 1/2 teaspoon nutmeg, 1/4 teaspoon cloves, and 1 teaspoon cinnamon with the dry ingredients. Raisins may be added to the batter or frosting if desired.

WHITE CAKE (Conventional Method)

2 cups sifted cake flour	1 1/4 cups sugar
2 teaspoons baking powder	1 teaspoon vanilla
1/2 teaspoon salt	1 cup minus 1 tablespoon milk
1/2 cup vegetable shortening	4 egg whites

Sift flour, baking powder and salt together 3 times. Soften shortening and gradually add sugar and vanilla and cream until light and fluffy (5 minutes at low speed on mixer). Add dry ingredients and milk alternately by thirds. After each addition beat about 25 strokes or for 2 minutes at low speed. Beat egg whites until stiff but not dry. Fold carefully, but thoroughly into batter (1 minute, low speed). Bake in two 8-inch layer pans at 375° for 30 to 35 minutes. (Colorado Bulletin).

APPLESAUCE CAKE (Conventional Method)

2 cups sifted cake flour	1 cup sugar
1 1/2 teaspoons soda	1 teaspoon vanilla
1/2 teaspoon salt	1 egg
1/2 teaspoon cinnamon	1 cup applesauce
1/4 teaspoon nutmeg	1/4 cup sour milk
1/2 teaspoon cloves	1 cup raisins floured
1/3 cup vegetable shortening	1 cup chopped nuts, floured

Sift the flour, soda, salt and spices together 3 times. Reserve 2 tablespoons for flouring nuts and raisins. Soften shortening and cream with sugar and vanilla until fluffy (4 minutes, medium speed). Add beaten egg and mix 1 more minute. Add the dry ingredients, applesauce and sour milk alternately by thirds. Beat for 75 strokes or for 1 minute at low speed after each addition. Stir in nuts and raisins. Pour into 9-inch square pan. Bake at 350° for 45 minutes. (Colorado Bulletin)

CHOCOLATE CAKE (Conventional Method)

2 cups sifted cake flour	1 teaspoon vanilla
2 teaspoons baking powder	3 eggs
3/4 teaspoon salt	2 1/2 squares unsweetened
2/3 cup vegetable shortening	chocolate (melted over hot water)
1 1/3 cups sugar	1 cup (minus 1 tablespoon) milk

Sift the flour, baking powder and salt together 3 times. Soften the shortening (1 minute at medium speed). Add the sugar gradually and cream until light and fluffy (7 minutes on mixer). Add eggs 1 at a time and beat well. Stir in melted chocolate (1 minute with mixer). Add dry ingredients and milk alternately by thirds. Beat 75 strokes after each addition or a total of 6 minutes at low speed. Bake in two 9-inch layer pans at 375° for 25 to 30 minutes. (Colorado Bulletin)

CHOCOLATE SOUR-CREAM CAKE

1 3/4 cups sifted cake flour	2 squares unsweetened chocolate
3/4 teaspoon soda	melted in
1/2 teaspoon salt	1/4 cup hot water over low heat
3 eggs	1 teaspoon vanilla
1 1/2 cups sugar	1 cup sour cream (20% or higher)

Sift flour, soda and salt together 3 times. Beat eggs until thick and lemon colored (4 minutes at high speed). Add sugar gradually until mixture is thick and light, (3 minutes at medium speed). Blend in cooled chocolate mixture, water and vanilla (1 minute at low speed). Add dry ingredients and sour cream alternately by thirds. Beat 25 strokes after each addition or a total of 1 1/2 minutes on low speed. Bake in two 8-inch layer pans at 350° for 25 to 30 minutes.

For variety, bake half the recipe in a loaf pan and use the other half for cup cakes. (Colorado Bulletin).

SOUR CREAM CAKE

2 cups sifted cake flour	1 1/3 cups sugar
1/2 teaspoon baking powder	1 teaspoon vanilla
1/2 teaspoon soda	1 cup sour whipping cream
1/2 teaspoon salt	into which
3 eggs	1/4 cup cold water is stirred

Sift flour, baking powder, soda and salt together 3 times. Beat eggs until thick (4 minutes at high speed). Gradually add sugar; continue beating until mixture is thick and lemon colored (3 minutes at medium speed). Add vanilla and fold in dry ingredients with the sour cream and water alternately by thirds. Beat 25 strokes after each addition or a total of 1 1/2 minutes on low speed. Bake in two 8-inch layer pans at 375° for 25 to 30 minutes. (Colorado Bulletin)

YELLOW CAKE (Streamline Method)

1 cup vegetable shortening	3/4 cup milk
3 cups sifted cake flour	2 teaspoons vanilla
2 1/2 teaspoons baking powder	4 egg yolks
1 teaspoon salt	4 egg whites
1 1/2 cups sugar	1/4 cup milk

Soften shortening. Sift flour, baking powder, salt and sugar together 3 times and add to shortening. Add 3/4 cup milk, vanilla, and egg yolks. Beat 300 strokes or mix for 2 minutes. Beat egg whites until stiff and add with remaining milk. Beat for 150 strokes or mix for 1 minute. Bake in three 8-inch layer pans at 375° for 25 to 30 minutes. (Colorado Bulletin)

BURNT SUGAR CAKE (Streamline Method)

1/2 cup vegetable shortening	1 teaspoon vanilla
2 1/2 cups sifted cake flour	3/4 cup cold water
1 7/8 teaspoons baking powder	3 tablespoons burnt-sugar sirup
1/2 teaspoon salt	2 egg whites
1 1/4 cups sugar	1/4 cup sugar
2 egg yolks	1/4 cup cold water

Soften shortening. Sift flour, baking powder, salt and sugar together 3 times and add to shortening. Add egg yolks, vanilla, cold water and burnt-sugar sirup. Beat 300 strokes or 2 minutes at low speed. Beat egg whites until foamy. Gradually beat in 1/4 cup sugar and beat until stiff. Add to batter with 1/4 cup cold water. Beat 150 strokes or 1 minute on mixer. Bake in two 9-inch layer pans at 375° for 25 to 30 minutes. (Colorado Bulletin)

Burnt-sugar sirup: Stir and melt slowly 1/2 cup sugar in a heavy skillet. Allow it to brown slightly. Add 1/2 cup boiling water and cook until smooth. Cool before using. Left-over sirup may be used in frosting or stored in covered container in refrigerator.

FUDGE CAKE (Streamline Method)

1 1/2 cups milk	2 1/4 cups sugar
4 squares chocolate	3 egg yolks
1/2 cup shortening	2 teaspoons vanilla
2 cups sifted cake flour	3 egg whites
2 teaspoons baking powder	1 cup nuts, chopped and floured
1 teaspoon salt	

Heat milk and chocolate together in double boiler. Beat with rotary beater until smooth. Cool. Soften shortening. Sift flour, baking powder, salt, and sugar together 3 times and add to shortening. (Reserve 1 tablespoonful for flouring nuts). Add egg yolks, 1 cup of the milk and chocolate mixture and vanilla. Beat 300 strokes or mix for 2 minutes at low speed. Add remainder of milk and chocolate mixture. Beat 150 strokes or mix 1 minute. Beat egg whites until stiff but not dry. Fold egg whites and nuts into batter. Bake in 9x13-inch pan at 350° for 45 minutes. (Colorado Bulletin)

ANGEL FOOD CAKE

1 cup sifted cake flour	1/4 teaspoon salt
1 1/4 cups sifted sugar	1 1/4 teaspoons cream of tartar
1 1/4 cups egg whites*	1 teaspoon vanilla
(10-12 large eggs)	1/4 teaspoon almond extract

Measure sifted flour, add 1/4 cup sugar and sift together four times. Beat egg whites and salt with flat wire whisk or with rotary beater until foamy. Sprinkle in cream of tartar and continue beating until egg whites are stiff enough to hold up in soft peaks but are still moist and glossy. Sprinkle remaining sugar over egg whites, about 4 tablespoons at a time, and beat after each addition to blend (25 strokes). Beat in flavoring (10 strokes). Sift about 1/4 of flour over mixture and fold in lightly with whisk or spoon (15 fold-over strokes), turning bowl gradually. Continue folding in flour by fourths in this way, folding well after the last addition (25 strokes).

Turn into ungreased 10-inch tube pan. Bake in moderate oven (375°) 30 to 35 minutes or until done. Remove from oven, invert pan, and let stand 1 hour or until cake is cool. (Wyoming Bulletin)

*Remove eggs from refrigerator several hours before using.

They beat up lighter and more easily when at room temperature and give increased fineness of grain and delicacy of texture to angel food cakes.

WHOLE-EGG SPONGE CAKE

6 egg yolks	1/2 teaspoon cream of tartar
1 1/2 tablespoons water	1/2 cup sugar
1 teaspoon vanilla	1 1/4 cups plus 1 tablespoon
1/2 teaspoon salt	sifted cake flour
1/2 cup sugar	1 1/2 tablespoons lemon juice
6 egg whites	1 tablespoon grated lemon rind,
	if desired

Beat the egg yolks slightly with the water, vanilla and salt. Add 1/2 cup sugar gradually and continue beating until thick and lemon colored. Beat egg whites and cream of tartar until foamy. Add remaining sugar gradually until peaks form and fall over slightly when beater is removed from mixture. Fold yolk mixture into egg-white mixture. Add flour by fourths, using 15 strokes after each addition. After last addition, mix 10 additional strokes. Fold in lemon juice and rind. Bake in an ungreased, 8-inch tube pan at 340° for 40 to 50 minutes. Invert pan on rack and allow cake to cool before removing from pan. (Colorado Bulletin)

ORANGE CHIFFON CAKE

2 1/4 cups sifted cake flour	Grated rind of 2 oranges
1 cup plus 6 tablespoons sugar	Juice from 2 oranges plus
2 tablespoons baking powder	water to make 3/4 cup
1 teaspoon salt	1 cup egg whites
1/2 cup cooking salad oil	1/2 teaspoon cream of tartar
5 unbeaten egg yolks	

Sift flour, sugar, baking powder and salt together into mixing bowl. Make a "well" and add in order the salad oil, egg yolks, grated rind, orange juice and water. Beat with spoon until smooth. Sprinkle cream of tartar over egg whites and whip until the whites form very stiff peaks. They should be much stiffer than for Angel Food or meringue. Do not underbeat whites. Pour egg-yolk mixture gradually over whipped egg whites, gently folding with rubber scraper until just blended. Do not stir. Pour into ungreased 10-inch tube pan. Bake at 350° for 60 minutes or until done. Invert until cool. Loosen from sides and tube with spatula.

One-half of the recipe may be baked in a 9-inch tube pan for 50 minutes at 350°. (Wyoming Bulletin)

COCOA CHIFFON CAKE

1 cup boiling water	1/2 cup cooking salad oil
1/2 cup cocoa	7 unbeaten egg yolks
1 3/4 cups cake flour	1 teaspoon vanilla
1 1/2 cups plus 3 tablespoons sugar	1/4 teaspoon red coloring,
1 1/2 teaspoons baking powder	if desired
1 teaspoon salt	1 cup egg whites
	1/2 teaspoon cream of tartar
	1/4 teaspoon baking powder

Boil water and cocoa for 2 minutes, stirring constantly, then cool. After cooking, measure and add water to make 1 cup. Sift flour, sugar, baking powder and salt together in mixing bowl. Make a "well" and add in order the salad oil, egg yolks, cooled cocoa mixture, vanilla and red coloring if desired. Stir the mixture with a spoon for 2 minutes (157 strokes per minute). Whip egg whites until foamy, add cream of tartar, and continue to whip until they start to form peaks, then add the 1/4 teaspoon baking powder and whip until they form very stiff peaks. Do not underbeat. Pour egg-yolk mixture gradually over whipped egg whites, gently folding it in with a rubber scraper until just blended. Pour into ungreased 10-inch tube pan. Bake at 350° for 60 minutes or until done. Invert cake until cool. (Wyoming Bulletin)

VERY BEST FRUIT CAKE

1/2 lb. nut meats (walnuts, pecans, or almonds)	1 teaspoon cinnamon
1/2 lb. dates	1/2 teaspoon nutmeg and allspice
1 3/4 lbs. candied fruit mix	1 teaspoon salt
1/2 lb. raisins	1 cup butter or vegetable shortening
1/4 lb. dry shredded coconut	1/2 cup sugar
2 cups sifted cake flour	1/2 cup honey
1 teaspoon baking powder	5 eggs, well beaten
	6 tablespoons fruit juice

Halve the nut meats, cut dates in eighths. Combine with fruit mix, raisins and coconut. Sift flour with baking powder, spices and salt. Cream the butter with sugar, beat in honey, stir in eggs. Add dry ingredients and fruit juice alternately to the creamed mixture blending thoroughly. Pour batter over the mixed fruit, nuts and coconut. Mix until all the fruit is well covered with batter. Line greased baking tins with three layers of waxed paper, allowing 1/2 inch of paper to extend above all sides. Pour batter into tins spreading lightly into corners. Decorate top with candied pineapple, cherries, and nuts. Bake in a slow oven at 250° for 3 1/2 to 4 hours. Place a flat pan containing water in the bottom of the oven during baking to give the cake a glaze and a moist texture.

The cake may be steamed in a pressure cooker. Line bottom and sides of 1-pound coffee cans with several layers of waxed paper. Fill 1/2 full, cover with tight lid. Place on rack in cooker. Use 4 to 5 cups of water in cooker. Steam at 5 pounds pressure for 50 to 60 minutes. (Wyoming Bulletin)

INEXPENSIVE DARK-HONEY FRUIT CAKE

6 tablespoons vegetable shortening	1 teaspoon cloves
1/4 cup plus 2 tablespoons sugar	1 teaspoon cinnamon
1/2 cup honey	1 cup thick, unsweetened applesauce
2 egg yolks	1 cup diced glazed fruit mix
2 1/4 cups sifted cake flour	1 cup chopped nuts
1/4 teaspoon baking powder	1 1/2 cups cooked raisins, chopped
1/2 teaspoon soda	2 egg whites
1 teaspoon salt	
1 teaspoon allspice	

Cream the shortening thoroughly and add the sugar gradually while creaming. Beat in honey until light and fluffy. Mix in egg yolks. Sift flour, baking powder, soda, salt, and spices and add 2 tablespoons of the dry mixture to the above creamed mixture. Then add the remainder alternately with applesauce to the creamed mixture. Mix fruits, nuts, and well-drained raisins, and add to the batter. Fold in stiffly beaten egg whites. Bake in 2 loaf pans about 9x4x3 inches. Use lightly greased waxed paper in bottom of pans; do not grease sides of pans. Bake at 350° for one hour or until done. Cool 15 minutes before removing from Pans. May be stored several weeks in a tight tin container. (Wyoming Bulletin)

MUFFINS

2 cups sifted flour	2 to 4 tablespoons melted shortening
3 teaspoons baking powder	1 cup milk
1/2 teaspoon salt	1 beaten egg
0-2 tablespoons sugar	

Sift dry ingredients together twice. Combine melted shortening and milk with beaten egg. Make a well in the flour mixture and add the milk mixture all at once. Stir lightly, just enough to moisten the dry ingredients and give the mixture a rough appearance. Fill greased muffin tins $\frac{2}{3}$ full. Bake at 425° for about 20 minutes. (Montana Bulletin)

WAFFLES

1 1/2 cups sifted flour	1 cup milk
2 teaspoons baking powder	2 egg yolks
1/2 teaspoon salt	3 to 5 tablespoons melted shortening
1 tablespoon sugar	2 egg whites

Sift dry ingredients together. Mix milk, egg yolks and melted shortening. Make a well in dry ingredients and add liquid ingredients all at once. Stir only until well mixed. Fold in stiffly beaten egg whites. Bake in a hot waffle iron. (Montana Bulletin)

GRIDDLE CAKES

1 1/2 cups sifted flour	1 egg, beaten
2 to 2 1/2 teaspoons baking powder	1 cup milk
3/4 teaspoon salt	2 tablespoons melted shortening
0 to 1 tablespoon sugar	

Sift the dry ingredients together. Combine the beaten egg, milk and melted shortening. Add to the dry ingredients, stirring only until the batter is smooth. Bake cakes on a hot griddle. (Montana Bulletin)

BISCUITS

2 cups sifted flour	1/4 to 1/3 cup shortening
3 teaspoons baking powder	2/3 cup plus 2 teaspoons milk
1 teaspoon salt	

Sift flour, baking powder and salt together twice. Cut the shortening into the flour with a fork or pastry blender. Add milk all at once, stir vigorously about 20 seconds or until the mixture thickens. Turn the dough onto lightly floured board, shape quickly into a ball, then knead lightly for about 20 seconds and roll to about $\frac{1}{3}$ inch thickness. Cut with a floured biscuit cutter. Bake in a hot oven ($425-450^{\circ}$) for about 12 minutes. (Montana Bulletin)

GINGERBREAD

1 cup boiling water	1/2 cup sugar
1/2 teaspoon salt	2 eggs
1 teaspoon cinnamon	2/3 cup dark molasses
1 teaspoon cloves	2 1/4 cups sifted all-purpose flour
1 teaspoon ginger	4 tablespoons cornstarch
1/2 cup shortening	1 teaspoon soda

Mix spices with boiling water and let stand until needed. Cream shortening and sugar. Add eggs and beat. Add molasses and beat again. Sift flour, soda and cornstarch together. Combine flour mixture and water mixture with creamed mixture alternately, beginning and ending with the flour. Stir until smooth.

Pour into large greased baking pan (10 x 14 x 2 inches) or 2 smaller baking pans or muffin cups. Bake at 375° for about 20 minutes in muffin cups or 30 minutes in baking pans. (Montana Bulletin)

BANANA BREAD

1 3/4 cups sifted flour	2/3 cup sugar
1/8 teaspoon salt	2 eggs
1/4 teaspoon soda	2 tablespoons milk
2 teaspoons baking powder	1 cup mashed bananas (2 or 3)
1/3 cup butter	1/2 cup nutmeats, chopped

Sift together flour, salt, soda and baking powder. Soften butter; add sugar gradually and cream well. Beat in eggs. Mix sifted dry ingredients alternately with milk and bananas. Add nuts. Bake in greased one-pound loaf bread pan at 350° for 50 to 60 minutes. (Montana Bulletin)

NUT BREAD

2 cups sifted flour	5 tablespoons shortening
1/2 cup sugar	1 egg
3 teaspoons baking powder	1 cup milk
1 teaspoon salt	1/2 cup walnut or pecan meats

Mix and sift dry ingredients. Cut in the shortening. Beat egg well, blend with milk and chopped nutmeats. Add to dry ingredients, beat until well mixed and turn into greased one-pound loaf bread pan. Let stand 20 minutes, then bake at 350° for 40 minutes. (Montana Bulletin)

Altitude Adjustments: In most quick breads, the liquid ingredients are added to the dry ingredients all at once. This method makes it difficult to adjust the recipe to differences in moisture content of flour. If the batter or dough is too stiff, make a note of this and reduce the flour by 1 to 2 tablespoons the next time the recipe is made.

DOUGHNUTS

4 to 4 1/2 cups sifted flour	4 teaspoons baking powder
1 cup sugar	1 cup milk
1 teaspoon salt	2 tablespoons shortening
1 teaspoon cinnamon	2 eggs, beaten
1/2 teaspoon nutmeg	

Sift dry ingredients together twice. Add milk and melted shortening to beaten eggs. Blend liquid ingredients with dry ingredients and stir until a soft ball is formed. Put on a slightly floured board, knead gently until the dough is smooth, about 10 strokes. (Ingredients may also be combined by the conventional cake method.)

Roll out to 1/2 inch thickness and cut with doughnut cutter. Fry in deep fat at a temperature of 365° to 375°. Do not attempt to cook more than 3 or 4 at a time. Keep the temperature constant and turn the doughnuts when they rise to the top of the fat. Turn frequently until they are sufficiently brown. Drain on absorbent paper. (Montana Bulletin)

POPOVERS

1 cup sifted flour	1 cup milk
1/3 teaspoon salt	1 tablespoon melted
2 eggs, beaten	shortening

Sift the dry ingredients together. Add beaten eggs to the milk and melted shortening. Combine the liquid with the dry ingredients. Beat with a rotary beater until smooth. Pour into greased baking cups, filling about 1/2 full. Bake at 475° for 10 minutes, reduce temperature to 300° and bake for 20 minutes or until firm to touch. (Some prefer to bake at 450° for 30 minutes, then reduce temperature to 350° for 15 minutes longer.) (Montana Bulletin)

BROWNIES

1 square chocolate	1/8 teaspoon salt
3 tablespoons shortening	1/2 cup plus 1 tablespoon cake flour
1/2 cup minus 2 tablespoons sugar	1 teaspoon vanilla
1 egg, beaten	1/4 cup nuts

Blend chocolate, shortening and sugar in top of double boiler. Beat in egg and salt. Add flour and vanilla and beat well. Spread dough in two greased 8-inch square pans. Sprinkle chopped nuts on top of dough and press in lightly. Bake at 350° for 15 minutes or until done. Makes about 32 squares. (Wyoming Bulletin)

SUGAR COOKIES

1 3/4 cups flour	1 egg
1 teaspoon baking powder	1/2 teaspoon lemon flavoring
1/2 teaspoon salt	1/2 teaspoon vanilla
1/2 cup shortening	1 tablespoon water or more
1/2 cup plus 2 tablespoons sugar	if needed

Sift flour, baking powder, and salt. Cream the shortening and sugar, add egg and flavoring and beat well. Combine dry ingredients in fourths to the creamed mixture and add water after one-half of flour has been added. Cover dough and chill for 1/2 hour. Roll out 1/8 inch thick on pastry cloth using a stockinet covered rolling pin. Sprinkle sugar over dough and cut into desired shapes. Bake on ungreased cooky sheet at 400° for 8 to 10 minutes or until done.

Yield: About 2 dozen cookies. (Wyoming Bulletin)

CRISP MOLASSES COOKIES

1/2 cup plus 1 tablespoon sugar	1/4 teaspoon salt
1/2 cup shortening	1 1/2 teaspoons ginger
1/3 cup dark molasses	1 teaspoon cinnamon
1/2 teaspoon lemon flavoring	1/4 teaspoon soda
1 small egg	
1 1/2 cups plus 2 tablespoons flour	

Cream the sugar and shortening; add molasses, flavoring, and beaten egg. Sift flour, salt, spices, and soda. Add to first mixture in about four additions. Cover dough and chill for 1/2 hour. This dough may be conveniently rolled between two layers of waxed paper. Flour the dough and waxed paper lightly. Remove the top layer of paper and cut dough into desired shapes. Bake at 400° for 8 to 10 minutes.

Will make about 3 dozen 2-inch cookies. (Wyoming Bulletin)

OATMEAL DROP COOKIES

1 egg	1/2 teaspoon salt
1/2 cup plus 2 tablespoons sugar	1/4 teaspoon soda
1/4 cup plus 1 tablespoon shortening	4 tablespoons sour milk
1 cup rolled oats	1/2 cup nuts
1 cup sifted flour	1 cup raisins
1 teaspoon baking powder	

Beat egg and stir in sugar. Add melted shortening and then rolled oats. Sift and measure flour, add baking powder, salt, and soda and sift again. Add to first mixture alternately with sour milk. Mix in nuts and raisins. (Dry raisins should be soaked in warm water until soft. Drain well and dry between folds of paper toweling). Drop mixture by teaspoon onto a greased cooky sheet. Bake 12 to 15 minutes at 350°.

Will make about 2 1/2 dozen cookies. (Wyoming Bulletin)

TOLLHOUSE COOKIES

1/3 cup shortening	1/4 teaspoon soda
1/3 cup brown sugar	1/2 teaspoon salt
2 tablespoons white sugar	2 to 3 teaspoons hot water
1 egg, beaten	1/2 teaspoon vanilla
1 1/8 cups sifted flour	2/3 cup chocolate morsels
	2/3 cup nuts (if desired)

Cream shortening and sugar together. Mix in the beaten egg. Sift flour, soda, and salt together and add to the above mixture. Blend in about 2 teaspoons hot water and the vanilla. Add chocolate morsels and nuts if desired. Mix until evenly distributed. Drop from a teaspoon onto a greased cooky sheet. Bake at 375° for 12 minutes or until done.

Yield: About 2 dozen cookies. (Wyoming Bulletin)

PEANUT BUTTER DROP COOKIES,

1 cup sifted flour	1 teaspoon vanilla
1 teaspoon baking powder	1/2 cup sugar
1/2 teaspoon salt	1 unbeaten egg
3 tablespoons shortening	3 tablespoons milk
1/4 cup peanut butter	

Sift flour, baking powder and salt together. Cream the shortening and peanut butter and stir in vanilla. Add sugar gradually, mixing it in thoroughly with the shortening. Add egg. Combine flour mixture alternately with the liquid, beginning and ending with flour. Drop from teaspoon on greased cooky sheet. Flatten and crisscross each cooky with a fork which has been dipped in flour. Bake on ungreased cooky sheet at 400° about 14 minutes.

Makes 2 dozen medium size cookies. (Wyoming Bulletin)

BUTTERSCOTCH REFRIGERATOR COOKIES

1/2 cup shortening	2 cups sifted flour
3/4 cup brown sugar	1 teaspoon soda
1/4 cup white sugar	1/2 teaspoon salt
1 egg, well beaten	1 to 2 tablespoons milk
1/2 teaspoon vanilla	1/2 cup nuts

Cream shortening and sugar; beat in egg and vanilla; Sift flour, soda and salt together. Combine dry ingredients and milk with creamed mixture. Add nuts. Shape into rolls about 1 1/4 inches thick and 6 inches long. Roll each in waxed paper and chill in refrigerator. Slice 1/8 to 1/4 inch thick. Bake on greased cooky sheet at 375° for 8 to 10 minutes or until done.

Yield: About 3 dozen cookies. (Wyoming Bulletin)

SUGAR COOKERY

Candies, icings, and jellies are cooked to a definite temperature. The finish temperature is lower at high altitudes than it is at sea level due to more rapid evaporation of moisture. If a thermometer is used to determine the finish temperature, the sirup should be cooked 1° lower for each 500 feet of altitude. For example, if the recipe says to cook the sirup to 236° at sea level and the elevation is 3000 feet, cook to 230° . At 4000 feet, cook 228° and at 5000 feet, cook to 226° .

If the cold water test is used to determine the finish temperature (soft ball, hard ball, and crack stage) for cooking sirup, the test is the same for various altitudes.

CANNING

Meats and Vegetables:

At sea level the general directions call for processing meats and vegetables at 10 pounds pressure to get the temperature necessary (240°) for safe processing. It takes more pounds pressure at higher altitudes than it does at sea level and allowance must be made for this in home canning. The general rule is to add $1/2$ pound pressure for each additional 1000 feet above sea level, as follows:

Sea level	- Use 10 lbs. pressure
2000 feet above sea level	- use 11 lbs. pressure
3000 feet above sea level	- use 11.5 lbs. pressure
4000 feet above sea level	- use 12 lbs. pressure
5000 feet above sea level	- use 12.5 lbs. pressure

Fruits and Tomatoes:

Fruits, tomatoes, and pickled vegetables can be safely processed in boiling water if the length of time is increased for higher altitudes. For each 1000 feet above sea level, add 1 minute to the processing time if the time called for is 20 minutes or less. If the processing period called for is more than 20 minutes add 2 minutes for each 1000 feet above sea level.

VEGETABLE COOKERY

Vegetables cooked by boiling take longer to cook at high altitudes than at sea level since water boils at a lower temperature with increase in altitude. It is difficult to say how much more time is required because cooking time is also influenced by other factors, such as the maturity of the vegetables and the size of pieces.

For cooking vegetables in the pressure sauce pan the time-tables included in the book of instructions have proven to be very satisfactory guides for most vegetables at altitudes up to 5000 feet.

Baked vegetables (squash, potatoes, sweet potatoes) cook about as quickly at altitudes up to 7000 feet as at sea level.